

AN INTRODUCTION  
TO  
ECONOMICS

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D. A. MacGIBBON

MACMILLAN







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AN INTRODUCTION TO  
ECONOMICS

FOR

CANADIAN READERS

REVISED AND MUCH ENLARGED EDITION

AN INTRODUCTION TO ECONOMICS

*Authorized for use in the provinces of  
Alberta, Manitoba and  
New Scotia*

TORONTO

THE MACMILLAN COMPANY OF CANADA LIMITED



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BY

DUNCAN ALEXANDER MACGIBBON

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A really satisfactory revision of this book must wait until the pattern of world affairs is more settled, and, within Canada, until necessary adjustments take place in the relationship of the Dominion to the provinces. In the meantime the text has been carefully revised to include notice of such changes in the **Canadian economy** as appear likely to be lasting and to bring statistical data down to 1941 or later where possible.

D. A. MacGIBBON.

May 31, 1945.

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IN THE HOUSE OF COMMONS  
STATISTICAL BRANCH OF THE DEPARTMENT OF MINISTRY OF TRADE AND COMMERCE

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# AN INTRODUCTION TO ECONOMICS

## CHAPTER I

### PRELIMINARY

**Life Long Ago.**—We live in a world which is in many aspects unlike the world of our forefathers. If we could turn back the clock of time several centuries, we should observe great differences. Instead of many large cities connected with each other by railway, telegraph, and telephone lines, we should find only a few and these comparatively isolated. Land communication with other points might exist, but it would depend on post horses or on coaches travelling over very bad roads. The main reliance would be upon slowly-moving vessels sailing along the coasts or using the navigable streams.

Instead of great factories and industrial plants, employing thousands of men and women, we should notice little workshops with craftsmen working singly or in small groups at their trades. We should be struck by the absence of heavy machinery or mechanical power. As we passed from one part of the country to another, we should observe that, to a large degree, each community was self-contained. It would be found that few commodities were not produced within the neighbourhood or nearby. The rich might be able to procure jewels, precious stones, silks, wines, spices, and other fine things, and delicacies from afar; travelling peddlers from time to time, on fair days



possibly, might bring certain common necessities to sell to all, but, in general, every one would produce for himself the articles necessary to sustain life and provide comfort.

Indeed, if we do not go far back, but consider the life of the early settlers in eastern Canada, we can observe a great difference from the life of to-day. Then the farm was the great centre of industry. On it sheep were raised, the wool was washed, carded, rolled and spun, and woven into cloth. Wild fruits were gathered in the summer; the fall killing provided meat for the winter, helped out by fish and game. The grain went to the small local mill to be ground for flour and meal. Furniture for the log house was largely home-made. Carpets and rugs were woven in the neighbourhood. The wood ashes were preserved to make soap. Dyes and ink were infused from the bark of trees. In the spring in the Eastern Townships of Quebec, schools closed for the "sugar holidays" when the sap of the sugar maple was running, and the settlers laid in an annual store of maple sugar and syrup. Some lumber, potash, and furs were sold for cash, but, in general, money did not circulate freely. News travelled very slowly; for newspapers were small and were so expensive that they were passed from neighbour to neighbour. Thus these little isolated communities lived largely within themselves and for themselves. They were but repeating the same stage of economic life that the older countries had passed through some generations earlier.

**Life To-day.**—What a contrast to the life which we live! Railways, steamers, aeroplanes, cables, newspapers, telegraphs, telephones, wireless and radios have brought the world to our door. Any great event happening within the limits of our civilization is known within a few hours. We are continually buying and selling things. We buy goods,



brought to us from distant lands, made by people who are ignorant of our individual existence. The farmer sells his wheat at a local elevator and does not know its ultimate destination. It may be ground into flour in a neighbouring city, or it may cross the ocean to mix with wheat brought from another part of the world. As flour or foodstuffs, it may be used up eventually in Asia or Africa. Except in the less advanced parts of the world, the little self-sufficing communities have disappeared.

**Co-operation.**—The present age has been called an age of steel or sometimes an age of machinery. The work of the scientists and inventors has enabled us to use minerals in the construction of great locomotives, railways, steamers, factories, and massive machinery. Steam and electricity provide motive power. This immense mechanical equipment enables us to perform tasks beyond the range of earlier men and to support an immensely larger population than in previous centuries. But we no longer, as individuals, learn to do many kinds of work, nor do we depend upon ourselves to make all the things we want. To-day, we devote ourselves chiefly to one line of effort, whether it is profession, trade, or industry; we rely upon others to supply us with the things we do not ourselves produce.

**Specialization.**—We do this as a matter of course, scarcely aware that in this way each person unites with many others for the supplying of the needs of all. This has been called unconscious co-operation. From a slightly different angle, it may be viewed as a world-wide division of labour, each part of the globe devoting itself chiefly to the production of goods which nature, training, and traditions enable it most easily to supply. By an exchange of these goods, it can procure from other parts of the globe the goods which those other parts are best fitted to produce.



Briefly, specialization takes place. Our world to-day is chiefly a world of specialists trained to do one task, rather than a world of "all round men" or "jacks of all trades".

**Industrial Organization.**—This specialization leads to the concentration of industry and trade at points peculiarly favourable. Great seaport cities have appeared such as Liverpool, New York, and Montreal. Great manufacturing centres such as Manchester or Pittsburg have grown up near cheap power or cheap raw material. Large financial or trading cities have become the hub of wide-spread lines of transportation. Sometimes all these influences combined at one point account for the growth of a vast metropolis. Within these cities are located great business firms whose interests may cover half the world. They may own factories, railways, ships, and mines. Instead of one man being sole owner of such a business, it will commonly be organized under special laws as a company or corporation with many shareholders, each with his small share in the venture as a whole.

**Financial Organization.**—At the same time and keeping pace with these changes in industrial organization, new ways of conducting business have developed. Bartering goods as a method of exchanging them has almost disappeared. We sell at one place and we buy at another. We compare and consider the values of articles by comparing their prices or the prices we should set upon them. So there has grown up a system of financial as well as industrial organization. Under our system of banking, there is scarcely a town or even a large village that does not contain the branches of one or two banks, while in the larger cities are to be found the head offices of the financial institutions of the country.



When we pause to examine our modern world, we discover that it is a very complex industrial organization indeed. Each part is closely related to the remainder by a thousand intricate bonds of which, normally, we are scarcely aware. Yet let disaster or evil come to any portion of our world, and we soon feel the interdependence of the parts. The failure of the cotton crop in the United States and Egypt would throw thousands of spinners and weavers out of work in British cities and elsewhere. The wastage of a great war may bring hard times to countries whose borders are untouched by hostile armies. When the European demand for wheat decreases, the price of that commodity is lowered in Canada and the United States. On every side we find that we are bound to the rest of the world by ties of co-operation the basis of which is our own material welfare.

**Occupations.**—We can observe this co-operation within limits in a smaller area such as Canada. The population of Canada is placed at nearly 12,000,000. Of this number 4,510,535 were reported by the Canadian census of 1941 as engaged in gainful occupations. Agriculture occupied 1,123,428, mining 77,934, forestry, fishing and trapping 138,786. These industries, with rough accuracy, are called the *extractive industries*, because the workers in these occupations are engaged in directly extracting or securing from nature foods, fibres, minerals and timbers which form the basis of industrial life. The extractive industries in 1941 employed about 33% of all the workers in Canada. Such a large proportion distinguishes the nature of Canadian life from the life of a country such as Great Britain, which imports vast quantities of foodstuffs and raw materials and exports coal and manufactured goods. The prim-



ary or extractive industries dominate here, but in Great Britain manufacturing holds the premier place.

**Manufacturing Industries.**—Nevertheless there is in Canada a fairly large group of workers engaged in changing industries of Canada in 1941 employed 961,178 persons. These were divided among the various industries as follows:

Food .....	115,206
Drink and tobacco .....	26,472
Clothing .....	117,898
Personal utilities .....	17,675
House furnishings .....	35,583
Books and stationery .....	45,500
Vehicles and vessels .....	117,492
Producers' materials .....	295,725
Industrial equipment .....	158,669
Miscellaneous .....	8,835

**Production.**—The actual fashioning of raw materials into completed commodities ready for use is, however, only a part of the process of production. Before they can be really used, goods must be carried to the places where they are needed. *Transportation* is an important phase of production and at every stage enters into the process. In a more restricted sense, however, the term means the carrying of goods or persons by rail or water. In Canada in 1941 this work and communications occupied 292,467 persons. Closely associated with this large group is the group engaged in *trading* and *merchandising*. For goods must not only be transported to convenient centres, but they must be held there in sufficient quantities to meet our needs as these necessities arise. This is the work of the wholesale and retail merchant. Manufacturers ship their

<sup>1</sup>In 1941 construction absorbed the services of 215,677 persons; the production of electricity 19,764.



products to wholesalers who, in turn, distribute supplies to the retail merchant. Thus finally the goods await our needs at the local store. In Canada in 1941 there were 374,930 persons occupied in trading and merchandising. In another group the census of 1941 reported that there were 33,920 persons engaged in finance and insurance. Compared to other business activities this number may seem small, but we shall see later how important is the place that banking and other financial institutions occupy in our daily lives.

It will be noted that the processes of production under modern conditions not only involve a great variety of workers, but also require a considerable period of *time* for their accomplishment. From the moment the first effort is put forth to extract the raw material from nature until the finished commodity becomes available, months often elapse. The product itself may have been carried considerable distances and has usually passed through many hands as it "ripened" into an article fit for our use or enjoyment.

**Other Groups.**—In addition to those groups directly connected with the production of material commodities we have, as part of our social life, *other groups gainfully engaged*. They are those who minister to certain personal needs which grow out of our nature and its necessities. Of this group the professional man is a good example: the doctor, the clergyman, the entertainer. Similar groups which render services of varying nature include the educationist, the lawyer, the statesman, the civil servant, and the soldier. On a more material level are the domestic servant, the housekeeper and the hotelkeeper. The census figures show 244,861 persons in the professions, and approximately 500,000 in personal services of one sort or another. Although these groups are



not directly engaged in the production of commodities, yet the service they render to society has its influence upon production and entitles them to receive a share in the means of subsistence in the same manner as the workman who is actually engaged upon the production of goods.

These figures compiled by the Census Bureau of Canada give us a fairly accurate picture of how the Canadian people supply themselves with the necessities, decencies, and luxuries of modern life. It is not a completely true picture, for it does not take account of work done in the home for the benefit of home life. Over and above those classified as gainfully employed there were in Canada in 1941, a large group reported to have no occupation. This number includes all those who are dependent upon others for their livelihood—married women, the young, the very old, the invalid, and any who do not work but live upon the income from wealth they have saved or inherited. It has been pointed out that the work of married women in the home does not come within the scope of the census, though it is of the greatest significance and importance in our national life. However, it is possible for us to observe from the census how closely interrelated our lives are, and how the effective working force of the nation spreads out and expands itself along various lines of activity, believing that in this way the greatest results are achieved.

Canada is only one part of an interdependent world. Many Canadians secure their livelihood by producing commodities which are sold in other countries. In return, Canadians are able to purchase products from abroad that either cannot be produced in Canada or could not be produced easily. It follows that Canadians are vitally interested in the standards of welfare and of stability of other countries. If these countries are unsettled or sunk in depression they are unable to buy Canadian goods and



Canada suffers. Canadians, therefore, are deeply concerned whether general conditions of welfare and of peace are being maintained throughout the world.

**Economics.**—The term "Economics" is used to describe the study of the methods which societies, states, and individuals employ in the management of their resources to secure the greatest return therefrom. The word comes originally from the Greek language and its idea is *management*. "*Economics teaches us what rules mankind should observe in order to advance in material prosperity.*"

Recent years have witnessed a remarkable growth of interest in the study of Economics. There are several reasons for this. In the first place it has become more fully realized that there are certain rules and principles which to a large degree control our industrial life. The relationship between cause and effect is not always clear but if certain rules are not observed, we pay the penalty in a lessened measure of material welfare. A keen effort has therefore been made to discover, elucidate and observe these maxims of prosperity. In the second place our lives have become so closely bound up with the lives of our fellow beings that it is necessary for us to study the effects of the gainful efforts of individuals upon society at large to make sure that indirectly these efforts are not doing an injury to others. In a general way this study is essential in the consideration of the relationship of one country to another. Finally our governments play an increasingly active part in the life of the citizen. A great deal of this activity affects the conditions under which an individual makes his living. Since under our form of political organization the citizen determines who shall constitute the government, a knowledge of economic principles is important in estimating the value of the economic policies which rival political parties propose.



## CHAPTER II

### CONSUMPTION

**Human Wants.**—The first step forward in examining our industrial life must be to understand why it exists. Why has there been built up an elaborate industrial organization? What are the motives which impel people to work? Why are they anxious to “get on” or to “do well”? The answer is that people are born with a desire to live. This desire from the first expresses itself through the medium of *wants*. The tiny infant, who does not know anything about life as yet, has a craving for food that will sustain it. As we grow and develop we understand the relationship between food and the maintenance of life. At the same time our wants expand. We not only desire to live, but to live well, for the expansion of these wants and their satisfaction adds to the zest and fullness of life. A moment’s reflection will convince us that the wantless creature would almost certainly perish from the earth. There would be no motive urging him on to life-sustaining activity.

Further thought will make clear to us that the range, variety, and fineness of a people’s wants are a fair indication of the place in the scale of civilization these people occupy. Primitive people are content with the satisfaction of a few primary needs, but as man ascends the scale of intelligence and culture his wants increase. Desires for comfort, art, music, literature, fame, and elaborate forms of amusement develop and take their places with the



simpler primary desires. The initial driving power behind the modern man's regular and, on the whole, intense industrial effort is, therefore, these wants or desires. He is always a creature with wants to gratify. The magnitude and nature of his wants may change; as years go by the uppermost desire may be to provide for the welfare of a family or to promote schemes of religion, benevolence or public good, but only rarely does the growth of a man's income keep pace with his ability and desire to use it. In general, we may say that from childhood to old age a leading characteristic of man is his endeavour to procure the means of satisfying his wants or desires. Our industrial organization is the method he has built up toilsomely through long generations to achieve that purpose.

**Facts Concerning Wants.**—Since wants play such a leading role in the development of our economic life it is worthwhile to examine them more closely. We must limit our examination, however, to those which are of economic importance:

1. *Physical wants* crave immediate satisfaction. We may exercise restraint and defer their satisfaction or, in certain cases, leave them unsatisfied, but in either case an effort is required. To a large degree, we may form habits of satisfying them at certain times and our physical system will adjust itself to these occasions. Thus, after the habit of eating at stated intervals has been formed, we can without much difficulty restrain our desire for food until these times. This exercise of restraint and order in our lives is in marked contrast to the habits of primitive people. We have a vivid picture of lack of restraint in the story of Esau's sale of his birthright to Jacob for a single mess of pottage.

2. Any *specific* want can be satisfied—some wants more quickly than others. Thus, in the case of food, after we



have eaten a certain amount our want is satisfied. In a similar manner this is true of many of the ordinary necessities of life. On the other hand, the point of satiation or satisfaction is not quickly reached for some things. This is particularly true of such articles of adornment as fine clothing and jewelry. But even here a limit is reached. However, we must be careful to note that this principle holds *only under certain definite conditions*: (a) The time must be limited. Even a hearty meal only satisfies for a few hours. (b) No diseased condition must be induced. The use of drugs or of strong liquors only whets the appetite for more. There is also an apparent exception to the rule: the desire for money does not decrease as more is obtained. But money represents to us *all* the things we want. A desire for money cannot therefore be described as a specific want. With these qualifications the general principle is effective and is sometimes called the law of the satiation of wants.

3. At any given time a number of wants are *competing* for attention in our minds. Frequently this competition is not perceived though it is present, for some one want may be very keen, and we may not notice the others. But when this particular want is satisfied or partially satisfied, another attracts our attention, which it then may pay to endeavour to satisfy. But at other times we are squarely faced with two competing wants, both of which cannot be satisfied. We are not sure which will yield us the greater satisfaction. With limited means we aim to get the greatest degree of satisfaction possible. There thus arises a real problem of competing choices. It is the problem of the housewife with a limited sum of money on which to run the household. Similarly it is the problem of the statesman: how



shall he expend, to the best advantage of the community, the money taken from the people by taxation? Indeed it is the problem of everyone who has money to spend. After the most insistent wants of food, shelter, and raiment have been satisfied, there is a considerable freedom of choice as to which want will next be gratified. Some people weigh carefully the different alternatives, but a great deal of money is spent without much forethought. The art of spending money in a way that will yield the greatest return is a difficult one. Study to spend wisely does not imply niggardliness of nature or lack of generosity, but rather qualities of carefulness and forethought.

4. Since wants are competing, it follows that if there is an increased difficulty in satisfying a given want it is likely that we shall endeavour to meet this situation either by *substituting* some other article or by foregoing the satisfaction entirely and satisfying its nearest competitor. When the price of an article goes up, if we can, we substitute something "just as good" or content ourselves with other satisfactions. If neither of these alternatives is open to us, we pay the higher price, but, our means continuing the same, we do so at the expense of some other gratification. The habit of substituting is of the greatest importance and is recognized by all business men. A great deal of seductive advertising and persuasive salesmanship is devoted to persuading us to choose a certain article in preference to a competing one.

5. Certain wants are said to be *complementary* because the existence of one want implies another. If we desire to enjoy riding in an automobile, then besides the automobile we must take into consideration gasoline, repair stations, and other accessories. An otherwise perfect dinner may be spoiled by the absence of salt. It is not the main part



of the dinner, but yet a very necessary accompaniment. In the same way, a taste for preserved fruit implies a demand not only for the fruit itself but also for sugar.

6. Wants are *recurring*. The intervals between the satisfaction of a desire and its recurrence in certain instances are so short that we might almost say that the desires are continuous. If we consider the wants of a whole community, the approach to continuity is very much closer. While at certain times and seasons there is a more general desire for given articles than on other occasions, on the whole the demand for the staple commodities of life is permanent and regular. Stores do business every day, not with the same people necessarily, but with different members of the community whose wants recur at different intervals.

When we study the nature of wants, we see that they are not quite such simple things as we might imagine. They have their own peculiar characteristics like any other side of our nature. *In human wants and their satisfaction, we have the clue that explains the production of goods.* Nature herself does not provide, ready for use, all the goods and commodities which civilized man desires. For hundreds of years the human race have been building up methods and inventing processes by which it can most easily procure these supplies.

**Consumption.**—The use of goods to satisfy our wants is called consumption. With a few exceptions, the object of producing goods is to enjoy the satisfaction that comes from consuming them or to procure the means to consume other goods. The term consumption, like others which we shall have occasion to employ, requires definition. This may be most easily done at first by illustration. There are various ways in which goods may be consumed. We



naturally think first of the eating of food when we are hungry. The food is consumed, and we are satisfied. This illustrates the simple primary idea implied by the word "consumption." But let us consider it further. We may desire clothing which we procure and wear and the wearing of this apparel may give us keen delight. But in time this clothing has served its purpose; it has become worn or out of date. It is no longer capable of yielding us satisfaction. Here we have not the case of eating food, but a parallel instance. The use of certain articles has given satisfaction and gratified desires. But in time these articles have been used up. They have been "consumed."

Let us take a third example. A lover of flowers cuts a bouquet of roses for his room. He enjoys their beauty of colour and form and their fragrance. But after a while they fade away. They are no longer able to please. They too have been "consumed". A similar instance would be the enjoyment derived from a work of art, but a work of art may last centuries without losing its appeal or seriously showing signs of decay. In comparison with the pleasure derived from flowers, the chief difference is one of durability. The contemplation of either gives pleasure and delight.

We are now in a position to define consumption. *The consumption of goods is their use in a manner which will give direct satisfaction to the user.* There are other ways in which goods can be used up that do not fall within the idea of consumption. Wheat is used to make flour, and flour to make bread. We can think of bread being consumed and giving satisfaction, but the preceding processes of manufacture are preliminary to consumption, not consumption itself. Likewise the services a machine renders in the preparation of goods for consumption, wear out



the machine, but are prior to the act of consumption. Consumption only takes place when goods are consumed to yield a satisfaction.

It is quite possible to discover how a group of individuals actually satisfies its wants. This requires careful investigation as to how the group spends its income. Such information, however, is more difficult to obtain than might at first appear. People do not as a rule keep minute and accurate records of their spendings and, even if they do, they are usually unwilling to reveal these figures to the public. Still in a number of instances the facts have been carefully gathered from a considerable number of families and extending over a suitable period of time. These records give us a picture of the actual standard of living these people enjoyed. Probably the most famous work of this nature was done by Dr. Ernst Engel in 1857. Engel studied conditions of living in Saxony, and upon his investigations based the following table. It shows how families with different incomes divide their expenditure among the various needs of the household:

#### DIFFERENT INCOMES

##### Division of Expenditures among Needs of Households

	Self-supporting Labourer's family	Middle-class family	Well-to-do family
Food .....	62%	55%	50%
Clothing .....	16	18	18
Rent .....	12	12	12
Fuel and light ..	5	5	5
Education .....	2	3.5	5.5
Taxation .....	1	2	3
Care of Health ..	1	2	3
Personal service.	1	2.5	3.5

From these facts Engel deduced four principles:

1. The larger the income of a family, the smaller is the percentage of it expended for food.



2. The percentage of expenditure for clothing remains approximately the same for the larger incomes as for the smaller.

3. With all incomes investigated, the percentage of expenditure for rent, fuel, and light remains invariably the same.

4. The larger the income, the larger is the percentage expended for education, health, recreation, amusement, etc.

More recently other investigations have been made and they confirm in the main in the correctness of Engel's conclusions. The Department of Labour at Ottawa publishes monthly in the *Labour Gazette* the cost of a weekly budget for a family of five. The budget includes "staple foods, clothing, coal, wood, light and rent" and is "based upon the estimated importance of the various commodities included." In this instance the purpose is to show as closely as possible the amount of money required to support an average family at the standard of living enjoyed by a labourer, the standard of living itself having previously been carefully investigated.

The phrase "standard of living" has been used up to this point to mean the manner in which we actually satisfy our wants. But it is not quite so limited a term. It sometimes has the notion of an ideal standard of living which we have not actually achieved, but toward which we are aiming. The influence that such an ideal has upon our present expenditure cannot be determined with any accuracy, though undoubtedly it affects our conduct. Normally, it is marked by sacrifices which are made in the present in order that we may live more lavishly in the future. The individual who plans an old age of comfort and easy circumstances, may live very sparingly in the earlier years of his life to succeed in his purpose. In so far as he governs his expen-



diture for consumption purposes with this aim in view, we consider that he has a high standard of living. With this notion of the standard of living, as an ideal, goes the related one of the rate at which individuals or groups are progressing to an ideal. In the long run, wars tend to lower the standard of living. The great depression which set in about 1930, with the social suffering it caused, is considered to have been a delayed result of the first world war. How to prevent the recurrence of such a catastrophe engages the deepest thought of the statesmen of the allied nations.

In general it is to be observed that those nations with a high standard of living, those whose citizens have foresight and restrain their present consumption with a view to future returns, are the nations which to-day lead the industrial world. Peoples who spend lavishly without regard to future needs do not develop of themselves. They do not acquire stores of goods devoted to the production of commodities. They become borrowing nations; they lean upon their more thrifty neighbours. Of themselves they do not make possible the sustenance of large populations enjoying the refinements of civilization.

The meteoric rise of the United States to a position of world eminence in trade and industry might seem to belie this view. There the standard of life is very high, and extravagance undoubtedly is great. No doubt the same can be said of Canada. It is to be observed, however, that the United States is a comparatively young nation, still in the full tide of the exploitation of its natural resources. Moreover, even within the United States, the financial and commercial predominance of the north Atlantic seaboard is founded upon centuries of solid thrift.



### CHAPTER III

## PRODUCTION, GOODS, WEALTH

**Production.**—While nature provides us with much that may be directly enjoyed, no civilized peoples rely upon nature's free gifts for the satisfaction of all their wants. Man has found a more excellent way of providing for his needs. He has learned to combine his powers with the action of natural forces, not only to increase the quantity of goods capable of being enjoyed, but to improve their quality and to add to their variety. This is called *production*.

To be precise, man does not create matter. He has at the outset to deal with nature. There he begins. Taking advantage of the principles of growth, he can either cultivate the soil and enjoy its produce or tend herds and live upon their natural increase and upon products which they supply. This latter type of production is probably the earlier of the two. Both types, however, go back many hundreds of years to the primitive ages of man. To-day, in agricultural countries, according to the fitness of the soil and climatic conditions, both forms of production are carried on. In one part, stock raising will predominate; in another, the cultivation of cereals or fruit.

Man has also learned how to rearrange particles of matter, to subject matter to various influences, such as heat or pressure, to combine or separate different forms of matter—all with a view to producing the objects he desires. In doing so he makes use of the various principles of nature that he has discovered, such as the application of power.



The production of steel offers an excellent illustration of these methods. The ore, as it is brought from the mine, is in a loose state and full of impurities. These impurities are removed by smelting processes; various ingredients are added to improve or fix the qualities of the metal; it is cast into ingots, moulded, hammered, rolled; in short, it is subjected to a variety of processes and may emerge in the form of steel rails, bars, or rods according to the exact use for which it is designed. In this instance, production involves changes to a single kind of matter. Production of a more complicated kind may be observed where several kinds of matter, duly prepared, are combined to produce one of those conveniences in which the modern world is so rich. For example, many materials are used in the manufacture of an automobile—leather, glass, varnish, etc., and this is a vehicle which depends for power upon the application of one of nature's principles—the expansion of gas. Both these examples illustrate the production of goods by causing changes in the form of matter.

Goods may also be carried from one part of the world to another part with a gain in their usefulness. For instance, Western Canada produces more wheat than the people living in the prairie provinces can consume. But, on the other hand, the British Isles do not grow nearly as much wheat as the British people need and desire. They seek supplies from other countries. Canada exports annually around 200,000,000 bushels of wheat, the United Kingdom being her best customer; the latter imports annually over 200,000,000 bushels, drawing its supplies from various parts of the world. The transportation of this immense quantity of wheat to the British consumer is a good example of this phase of production. It makes available supplies of food



in the United Kingdom where they are needed to sustain life.

In recent years European countries have grown more at home. This policy has caused hardships in wheat-exporting countries and has lowered the standard of living in Europe.

Another form of production consists in keeping goods, from a point of time when there is very little need or desire for them, until another period when conditions have so changed that a stronger desire for their use exists. Here we have pre-eminently the industries of cold storage and warehousing. The storage of ice has solved many of the problems and lightened greatly the efforts of the housewife to provide a variety of fresh foods throughout the year. Packed away during the cold weather when there is little need for artificial methods of refrigeration, ice for cooling purposes is made available during the months of heat. No change has taken place meanwhile in the ice itself; physically it is the same article, but the simple fact of storage from one season to another has increased its capacity to give satisfaction to man.

These are characteristic ways in which the production of goods takes place. The soil comes under man's dominion and yields to his needs; forms of matter are changed; commodities are transferred from one place to another, or they are stored in anticipation of a change of conditions. In each instance we have an illustration of economy, of the careful management of our resources so that from them we may secure the greatest degree of satisfaction possible. In our ordinary economic life we find these three aspects closely related. Raw materials, grown from the soil or extracted from nature, are changed in form in manufacturing plants, transported thence to warehouses and stores, and there held to await the needs of the consumer.



At this point in our study, however, a caution is necessary. Culture of the soil, changes in form, the transportation or storage of articles, do not *necessarily* result in production, though that is the end in view. The effort may not be successful. The test is: does the process create or increase the capacity of the commodity to give satisfaction? This is the mark and sign of production. Cultivation, or physical change wrought on materials, which does not lead to this result, from an economic point of view, has failed. True production involves a searching study of the wants of man and a deliberate and successful attempt to satisfy them by appropriate commodities.

**Free Goods.**—Moreover, there are certain gifts of nature that we enjoy directly without the aid of processes of production. The air we breathe satisfies a need as imperative as food, but normally there is no effort involved in securing it. It is a free good. Free goods occur in nature under certain conditions: (1) They must be capable of being appropriated and enjoyed directly. (2) There must be a sufficiently large supply to satisfy the wants of all, otherwise a condition of scarcity will develop with its problems of competing wants. (3) It must be impossible to assume exclusive possession of the good, if not, it may be monopolized and held by one person or by a group who could deprive others of its use. It follows that certain objects may be free goods at one time and place, and not at another. Thus the water in a lake may be a free good to those who live along its shores, but when pumped and piped into the homes of a city may be an article of commerce.

**Economic Goods.**—We must distinguish between two main classes of goods, *free goods* and *economic goods*. The former we have just discussed. The latter includes all those goods which directly or indirectly satisfy wants, but



which do not exist in sufficiently large quantities to meet the desire for them. This scarcity may be due to the limited extent of nature's supplies or to the fact that they are not available in a natural state, but are the result of the productive processes. Both classes of goods satisfy wants, but the significant difference is that free goods are not objects of our anxious concern. While they are very important to our welfare, the fact that we may enjoy them without any exertion, and that we may not control or monopolize them, leads us to accept them without devoting any attention to their supply. It is upon economic goods that we rest our thoughts, for upon their scarcity or abundance depends a large part of our enjoyment of life.

**Wealth.**—When we wish to refer to a large mass or aggregate of tangible economic goods we use the term *wealth*. We commonly think of a man as being wealthy who owns or has claims upon a large aggregate of economic goods. The term wealth is sometimes used in a broader sense to mean anything that will satisfy an economic desire, exclusive of free goods. This would include the services of the artist and the professional worker, to which the term immaterial wealth is also sometimes applied. While the ability to provide these services is important, our chief interest, however, lies in exploring the processes of producing and consuming tangible goods, and it seems advisable to confine ourselves here to the narrower definition of wealth as an aggregate of economic goods. The next step is to study the production of wealth.



## CHAPTER IV

### THE FACTORS OF PRODUCTION

**Factors.**—The production of economic goods involves the co-operation of four factors or agents of production. These are *land*, *labour*, *capital*, and *organization*. Of these four the first two are primary and fundamental; without land and labour nothing can be produced. With these two alone, certain simple economic goods might be procured. With his own strength and without tools or instruments, man might gather certain fruits and possibly capture certain animals. The possibilities, however, would be limited, and the quantity secured very uncertain and precarious. To obtain the wide range and quantity of goods that we require to-day, man must call to his aid the other factors of production, capital and organization.

**Land.**—The term land is used in a broad sense, and includes not only the earth's surface of land and water, but all natural agents such as climate, moisture, water power, and such natural forces as man has learned to use. Some of nature's gifts, of course, are the deposits of minerals found beneath the earth's surface. In Economics all of this endowment of nature is included for convenience within the term land, when used, as here, in a general sense as one of the factors of production.

As a factor in production the service that land yields may be analysed into several aspects: (1) It is a source of raw material and food, secured from it either by growth



or extraction. (2) It provides the space or standing room upon which our work may be carried on. (3) It enables us to move about from place to place. (4) Its natural waterfalls, winds, and tides are sources of power. We also get from the land coal, wood, petroleum and many other sources of energy. (5) The earth's surface enables us to take advantage of climate and similar natural gifts that are otherwise free. All these aspects are significant and account for the importance of land as a factor in production.

**Labour.**—Labour stands in the closest relationship to land in the productive process. God may give the increase and richly endow nature, but if man does not put forth his efforts these gifts of nature will go unappropriated and unused. “We may define *labour* as any exertion of mind or body undergone, partly or wholly, with a view to some good other than the pleasure derived directly from the work.” This definition covers all forms of labour, the unskilled common labourer, the skilled mechanic, the foreman or supervisor, the professional man, and the business manager. It does not include, as labour, effort for its own sake, for the pleasure and joy of competition, or for the display of physical powers. On the other hand, the professional player enters a sport at least partly for the economic reward—for the money that his skill will bring him. His efforts must be classed as labour. It is work which he does because he is paid for it.

It will be noticed that the definition of labour as given above includes the activities of the organizer or director of industry, although at the beginning of the chapter organization was mentioned as a separate factor of production. The explanation of this apparent confusion in the use of terms is this: while the idea of labour, if strictly examined,



really includes the work of the organizer, yet popular usage restricts the meaning of the term. The term labourer as generally used, refers to the employee, to the wage-earning person, particularly to the manual labourer whether skilled or unskilled. While the organizer also works, he receives his reward in a different manner. This fact, together with the important position he occupies in modern production, has led to organization being treated as a separate factor in production.

**Capital.**—It has already been remarked that there would be few economic goods produced, if man attempted the task equipped with only his physical strength and his empty hands. But under ordinary circumstances to-day he is not forced to approach nature without equipment. By long centuries of saving, invention and experiment he has acquired and learned to use tools and machinery. This mechanical equipment is called *capital*: “the produced means of production”, to quote a famous *definition*. However, capital is not limited to tools and machinery, though these are important forms of capital. Capital includes all forms of wealth (exclusive of land) which are not used up or consumed in direct enjoyment, but are employed in further production of wealth.

Capital is the product of man's labour working in conjunction with nature. It accrues through saving. Among primitive people capital consists of a few rude tools or weapons. These, however, confer upon their owners greatly increased wealth. This in turn enables the store of capital to be increased. That is, productive effort results in wealth which is either consumed or saved. When saved and employed as capital, it assists fresh productive effort. This results in increased quantities of economic goods or wealth which may in turn be consumed directly or added



to the store of capital. In this way, through centuries of labour, and saving, there has been built up the vast equipment of capital goods that modern society has at its command.

The most important forms of capital are: (1) the factories, tools, and machinery that are employed in changing the forms of commodities; (2) the raw and unfinished materials such as wool, hides, bar iron, which are turned by suitable processes into finished goods; (3) the means of transportation and storage; (4) domesticated animals employed in production; (5) finished goods in the hands of merchants being held until desired for use; (6) gold and other forms of wealth employed in banking and finance to facilitate production. It is impossible to enumerate all the forms of capital, but the test is whether or not it is wealth (exclusive of land) held or used with a view to the production of goods. Capital is to be distinguished from land in that capital is the product of human industry and saving, while land is nature's direct gift. Both are factors in production.

Capitalistic production is said to be round-about production because, instead of making an article directly, man first employs his time in making a tool or machine which will assist him in making the object he actually desires. Thus if a man desired to catch fish, he might first employ his time fashioning a fishing spear. This method would be indirect in contrast to the endeavour to catch fish without the use of a spear or net or hook and line, which are really forms of capital. For a similar reason, capital goods are sometimes referred to as intermediate goods. They are not wanted for themselves, but for what they will help to produce. They are an intermediate step necessary to obtain more easily, goods which may be directly en-



joyed. Indeed, in many instances, without the aid of machinery it would be quite impossible to make certain articles at all. By utilizing machines, man is able to produce commodities that otherwise would be quite beyond his reach.

Capital is described as *fixed* capital when it is in the form of machines, factories, or tools. Here it does not change its form, but renders service to commodities by aiding in the creation of utilities of time, place, or form. Thus, in a saw mill, logs are cut into lumber. A threshing outfit makes it possible to separate the grain from the straw. On the other hand, raw materials or unfinished articles, which lose their identity in a finished product, are described as *circulating* capital. Thus, wheat ceases to be wheat and becomes flour; flour in turn yields up its qualities in becoming bread. The gradual transformation by successive changes and processes of a raw material into a commodity ready for direct use and enjoyment has been compared to the ripening of fruit. Raw materials "ripen" into finished goods.

**Organization.**—The final factor in production is organization. Organization includes both the determination of what goods the public want and the proper co-ordination of the three other factors of production, land, labour, and capital, to produce these commodities. In primitive times production was very simply organized. Most people produced for their own use alone. Even to-day many types of business do not require careful organization. In each instance, however, where production is to be achieved there must be the initial decision as to what is to be produced and this must be followed by further decisions as to the amount and kind of land, buildings, tools, machinery, and labour that is required to accomplish the desired



end. The men who perform this necessary work in production are known as organizers, enterprisers, or entrepreneurs. The word *entrepreneur* is the French word of which the equivalent in English is the word undertaker. It denotes the man who undertakes the task of forecasting what the public will demand and of bringing together into a productive unity the means whereby that demand may be satisfied. Economists use the French word *entrepreneur* in preference to the English term because the latter is associated with one type of business. In a general sense we speak, however, of a business venture or a business undertaking.

In modern civilization the *entrepreneur* or enterpriser is an extremely important person.<sup>1</sup> He is the pivot around which our economic life revolves. Since production for the market rather than for personal use is now the rule, the *entrepreneur* must not only be able to divine correctly what the public are willing to buy, but must also be able to perfect his methods of production so that he can place the goods upon the market at a price that will not cause him loss. Upon the *entrepreneur* falls the burden of accepting the risks of this task. The union of a high degree of foresight in reading the public mind combined with executive ability in choosing men and organizing an enterprise is rare. The number of first-class *entrepreneurs* that any country has is strictly limited. The importance of enterprise, organization, and management is often undervalued. Yet wise leadership in industry has a great deal to do with any country's prosperity. A concrete statement will bring this out more clearly. If a mistake is made and a line of production entered upon for which there is no demand, the result will be loss. This loss means the dissipation of capital and the misdirection of human

<sup>1</sup>See page 176.



energy which might have been applied along lines profitable to society.

If we assume that the enterprise has been wisely chosen, and actually will meet a public need, the problem of properly co-ordinating the other three factors of production remains. The *entrepreneur* must not only know *what* to produce but also *how* to produce. If it be a factory, he must determine the amount of land that is required for the site and its location. Thus Rockefeller's choice of Cleveland with its access to water and rail facilities for marketing was a great element in the early success of the Standard Oil Company. Further, he must determine the amount and kind of machinery required and he also must organize his labour force. All these decisions call for knowledge and are of great importance to the public at large. Because this system places the control and direction of capital in the hands of the *entrepreneur* it is commonly called the capitalistic system.

In an agricultural community the function of management may not be so clearly perceived, but it is equally necessary. It reveals itself just as plainly, though on a smaller scale, in sound farm management as it does in the great industrial enterprises of manufacturing and transportation. All the essential decisions that the captain of industry has to make, the individual farmer has to make likewise. In the first case the decisions may affect hundreds of men and great masses of capital, but that is the only difference.

We have then four factors of production: land with all its natural gifts; labour; the store of capital that man has built up through the centuries; and, finally, organization—the control and direction of these factors.



## CHAPTER V

### THE PRIMARY INDUSTRIES

**Primary Industries.**—In the first group of the industries of a nation we place *agriculture, mining, lumbering, fishing, and trapping*. These are the primary industries of any country. They are directly concerned with the first steps in the production of the various forms of wealth we enjoy. In these industries, man is in immediate contact with nature. By suitable modes of agriculture, he secures from the land commodities that become the chief means of subsistence. By mining operations, he extracts from beneath the soil the stores of useful minerals deposited there. In lumbering, he appropriates the product of years of forest growth. In trapping and fishing, he preys upon the wild life of land and water. Thus, in each instance, these industries are connected with the initial appropriation of nature's store.

The primary industries are sometimes divided into two groups—the *extractive* industries and the *genetic* industries. In the industry of mining, the miner simply removes or "extracts" the deposits of minerals he finds in the earth. These minerals are used up and the deposit is incapable of replacement. A parallel instance is afforded in lumbering operations. While forests may be replanted and in certain parts of Europe woodlands are the result of reforestation, commonly this is not true. The extent of the great forest belts of the temperate zones shows a continual decrease. There is no replanting; the natural



growth is removed. Under these conditions the industry is extractive. It takes, but does not replace. On the other hand, in farming, while crops are grown on the soil or stock pastured thereon, it is the surplus or the natural increase due to reproduction and growth that is considered available for use. Farming, therefore, is sometimes said to be *genetic*, that is, it is based upon the *principles of growth or increase*. However, this distinction commonly escapes notice and all primary industries are generally described as the extractive industries.

Of these industries in every country agriculture occupies a prominent position. The United States and several of the nations of Western Europe are classed as industrial nations because of the magnitude and extent of their manufactures, but even in those countries the great importance of agriculture is clearly recognized. It is true that the form agriculture takes varies with density of population, climate, soil, and geographical position. Certain important products are produced within relatively small areas and their culture gives a distinctive quality to the agriculture of those districts. On the other hand, certain cereals such as wheat are harvested in many parts of the world. Among the great field crops of international importance may be named wheat, corn, cotton, rice, sugar cane, coffee, and tobacco. The production of live stock is as widespread as the production of cereals.

**Diminishing Returns.**—A feature common to all the extractive industries is that they obey the *law of diminishing returns*. The law of diminishing returns can be best explained in its application to agriculture. Let us suppose that a farmer has a given area of land and that he faces the problem of how to secure the largest returns possible in proportion to a given expenditure of labour and capital.



Let us assume that his land is divided into three fields of equal acreage, but of unequal fertility. For the purposes of our illustration we may say that the results to the farmer from applying his capital and labour equally to the three fields will be as follows: the first yields 20 bushels per acre; the second, 15 bushels per acre; and the third, 10 bushels per acre. That is an equal amount of labour and capital is applied to each field but, since they are unequal in fertility, there is an unequal yield per acre. There is a diminished return on the poorer land. Now, if the farmer is able to add more labour and capital to the cultivation of these fields, he may find that, by applying to the best field a second amount of labour and capital equal to the first amount, he secures a total yield of 35 bushels to the acre. For convenience, we will call the initial amounts of labour and capital he applies to the three fields first units, and the second applications, since they are an equivalent amount, second units. By applying a second unit to the second field he obtains a total of 25 bushels to the acre, and a second unit applied to the third field raises the yield there to 18 bushels to the acre. In each instance there has been an additional yield per acre, but the yield is not proportional to the increased application of capital and labour. If it were proportional, the total yield per acre for the fields would be 40, 30, and 20 bushels per acre, respectively. Further experience might show that a third application to each field might bring a certain increase per acre in each case, and the experiment might even be carried farther. The results might be summarized in a table giving the yield in bushels per acre from the application of each unit of Labour and Capital. This table appears on the following page.



	Field A	Field B	Field C
Yield from application of First Unit	20	15	10
Additional yield from application of Second Unit .....	15	10	8
Total yield from two Units .....	35	25	18
Additional yield from application of Third Unit .....	10	8	6
Total yield per acre .....	45	33	24

To secure this amount of crop nine units of labour and capital have been employed, three units to each field. Now let us suppose that the farmer has at his disposal just six units of labour and capital. In order to get the greatest return, if he is acting intelligently, he will apply three units of labour and capital to Field A, two units to Field B and one unit to Field C. This would give him the greatest yield. The third unit applied to the most fertile area, Field A, would result in an additional yield per acre there exactly equal to the yield resulting from the one unit applied to the least fertile area, Field C. In each instance the final unit applied, whether it be the single application to the poorest field or the final application of a series to the most fertile field, is called the *marginal unit*. That is the unit that is on the edge or border where it becomes doubtful whether an additional unit should be applied or not.

A distinction is drawn between the final application to the poorest field and that to the most fertile field. In the case of the poorest field this is referred to as the *extensive margin*—cultivation has been extended outward from rich fields to poorer. On the other hand, where a number of units of labour and capital are applied to a



single area of land with each application resulting in a less than proportional return, the land is said to be cultivated *intensively*. The point at which the final unit is applied is called the *intensive margin*. As the example illustrates, a farmer cultivating his land intelligently will handle his capital and labour so that the intensive and extensive margins will tend to coincide; that is, the yield from the final application of labour and capital to the most fertile land will tend to equal the yield from the single application of labour and capital to the poorest land.

**Effect of improved methods of Farming.**—The principle of diminishing returns holds for all kinds of farming, but it is subject to one qualification. As the methods of farming are improved, the point where less than proportional returns are secured in intensive farming is not reached so quickly. There is a longer period before the point of diminishing returns appears. That is, we qualify the general principle by stating that it is only true in any given state of the art of production. In other words, its operation may be deferred by continual improvement in the methods of farming.

It will be obvious that, if it were not for the principle of diminishing returns, it would be profitable to concentrate capital and labour on selected portions of rich land advantageously situated and there produce the stores of food the world requires. But the operation of this principle limits the feasibility of such a scheme. After a certain number of units of capital and labour have been applied to a plot of land, no matter how fertile it may be, the point of diminishing returns is reached. If additional units continue to be applied, a point will ultimately be reached when the absolute or total produce per acre will



actually decrease. This will occur from sheer inability of the given area to sustain the capital and labour bestowed upon it. ✓

**Effect of Increase of Population.**—As a general result, as population increases, the cultivation of land becomes more intensive and covers a wider and wider area. The extensive margin moves outward from the great centres of the world's population. The great increase in population in Europe and America during the nineteenth century was matched both by improvements in the art of cultivation as shown by the spread of scientific agriculture in the more densely populated countries and by the settlement in North and South America, Australia and New Zealand of vast areas of what had previously been virgin soil.

**Effect of Cheap Transportation.**—Of course, it does not necessarily follow that the extensive margin is always the land most remote from the great industrial centres where population congregates. The development of cheap transportation by railway and steamer has opened up at various times lands of such great fertility that less fertile lands actually nearer to markets have really been on the margin of cultivation. The opening of the American and Canadian west caused lands in the eastern part of North America to go out of cultivation. Indeed, after 1870 the development of these western prairies caused the farmers of Europe to suffer from transatlantic competition.

At the same time, the competition of the American farmer did not drive out of cultivation completely the rich wheat lands of France and England. The point where the intensive cultivation of these fertile acres coincided with the extensive margin in the lands of the western hemisphere continued in general to yield equal returns per unit of labour and capital. That is, the last 12 or 15



bushels of wheat of a total yield of 30 or 35 bushels per acre grown on English or French soil, gave substantially the same gain to the cultivator as the 12 or 15 bushels per acre grown by the Canadian or American farmer.

In general, where small areas of land are highly cultivated to procure large yields per acre, the land is said to be under conditions of *intensive cultivation*. On the other hand, where relatively large areas are on the whole thinly cultivated for comparatively light yields, the land is said to be cultivated under conditions of *extensive cultivation*. In Europe intensive cultivation is the rule, in western North America extensive cultivation.

The principle of diminishing returns is thus an important law in agricultural production. While it is in farming that it may be most clearly examined, its operation may be observed in other extractive industries. Thus in a given coal mine only so many miners and so much machinery may be advantageously employed at one time. An increase in either factor does not bring a proportional increase in output. Similarly in the lumbering industry there is a natural limit to the number of men and the amount of machinery which can be economically used to remove the logs from a given stand of timber. In a limited fishing ground only so many boats can profitably operate. The law rests upon the fact that in each instance labour and capital are being applied to a limited area of land. Go beyond certain limits in the application of these factors, and the returns are not proportionate. The law of diminishing returns is thus a *limiting factor in production* in the extractive industries.

**Extractive Industries in Canada—Agriculture.**—Canada has vast natural resources, and the extractive industries accordingly play a large part in the economic life of the



Dominion. In the eastern provinces the area of occupied lands is placed at about fifty million acres with a further eighty million acres available for occupation. In the three prairie provinces one hundred and ten million acres are reported occupied with ninety million acres additional available for occupation. In British Columbia and on Vancouver Island there is considerable land suitable for agriculture, particularly for fruit and other specialities. Of course, much of the unoccupied land is of poorer quality or requires to be cleared of brush or timber before becoming available for tillage. In eastern Canada mixed farming, dairying, and fruit growing are firmly established. The average size of farm is approximately one hundred acres. In the prairie provinces, the production of wheat and coarse grains has increased with great rapidity. In 1900, the production of wheat in the west amounted to 17,000,000 bushels. In 1944 the third estimate of the wheat yield was 410,600,000 bushels; of oats, 370,800,000 bushels; of barley, 178,400,000 bushels; all grains 984,400,000 bushels.

These figures reveal the rapid expansion of prairie grain fields. Unfortunately this rapid expansion has taken place, to some degree, at the expense of the fertility of the soil. In the older settled part of the west there are signs of soil exhaustion. This condition has developed as a result of constant grain cropping without due measures being taken to restore the fertility of the soil. Many western farmers have chosen to "mine for wheat", that is, to farm large areas with a minimum of tillage. Adherence to this policy through a score of years has produced the inevitable result of worn-out land. In Manitoba, it has been estimated that more than a quarter of the potential wealth of the surface soil has disappeared. The average wheat yield of that province has dropped from



19 bushels to 15 bushels per acre. An attempt is now being made to cope with the problem of soil depletion by developing other methods of farming, particularly by the introduction of mixed farming and by a fuller use of fertilizers. Such changes appear, however, to be taking place gradually. It must be noted, too, that while stock raising and dairying tend to be overshadowed in the west by grain production, these industries are also developing rapidly and are now of very considerable importance.

**Forest Industries.**—A glance at Canadian forests and forest industries shows immense original resources, cruelly diminished, however, by destruction by fire. It is estimated that originally there were 900,000 square miles of commercial forest containing trees of pulpwood and saw log size, but that this area has been reduced to approximately one-half by forest fires. British Columbia, Ontario and Quebec are the chief lumber-producing provinces. These provinces also contain the largest supplies of pulpwood. At present three-fourths of the pulp and paper production of the Dominion is carried on in Quebec and Ontario, and practically one-half of all the pulpwood is cut in the province of Quebec. Present accessible reserves are estimated at 252,000,000,000 feet board measure of lumber and 1,500,000,000 cords of smaller material. The value of lumber and other saw-mill products produced in 1941 is placed at \$163,412,292, and that of manufactured pulp and paper products at \$175,000,000. The paper, pulp and lumber industries expanded greatly as a result of the demands made by the war.

The depletion of the more accessible timber stands both through commercial consumption and by fires has begun to create alarm. Calculated by the best information avail-



able Canada's forest resources are being reduced by about 3,900,000,000 cubic feet per annum. If this continues it will virtually mean exhaustion of these resources in about one hundred years. The lavish and wasteful exploitation of forests in Canada has led to a movement for their protection and conservation. Precautionary measures include more careful regulations governing the cutting of timber, more strict fire laws, and the organization of a fire ranger service. Since "during the past seventy-five years at least one-half of the commercial forest area has been burned", and since "it takes that length of time under the average forest conditions in the north country to make a spruce tree of pulpwood size", it is obvious that the conservation movement has begun none too soon.

**Mineral Industries.**—While the mineral resources of Canada are known to be very large, until careful geological surveys have been made, an accurate statement of Canada's mineral wealth is impossible. In Nova Scotia, Alberta, and British Columbia there are great coal reserves, placed at one-sixth of the total estimated coal reserves of the entire world. In northern Ontario there are deposits of gold, silver, and nickel; in British Columbia and elsewhere, a variety of minerals. The total value of minerals produced in Canada in 1941 was \$560,241,290. The leading products were gold, \$205,789,392; coal, \$58,059,630; nickel, \$68,656,795 and copper, \$64,407,497. These four account for 70 per cent. of the total value produced. Ontario far exceeds other provinces in the value of minerals produced. In 1941 Ontario produced approximately 44 per cent., British Columbia 12 per cent., and Quebec 25 per cent., or 81 per cent. of the total.



## CHAPTER VI

### THE MANUFACTURING INDUSTRIES

One aspect of our modern economic life, which sharply marks us off from the past and from primitive peoples, is the change in the nature and the vast development of the manufacturing industries. The very term manufacture bears vivid evidence to this change. The Latin roots of the word (*manu facio*) denote making by hand. To-day hand work is reduced to a minimum. The elaborate processes employed in changing the forms of commodities to adapt them better to the desires of man are carried on chiefly in great factories by means of ingenious and complicated machines. The worker expends his energy in the operation and care of these machines.

**Transformation of Industry through Inventions.** — Until about the middle of the eighteenth century the older methods prevailed. The worker was a craftsman who used with great skill a few simple tools to change the various raw materials into finished articles. In a few instances the craftsman still lingers, but he is not the typical workman of the present time. The transformation of industry is connected with a great series of inventions which affected many lines of industry. It can be most clearly seen in the industry of spinning and weaving. In 1738, Kay invented the drop box and flying shuttle. In 1764, Hargreaves brought to completion the spinning jenny. In 1769, Arkwright took out a patent for his water frame.



(This spinning machine was inappropriately called a water frame because driven by water power.) In 1779, Crompton combined the excellencies of Hargreaves' jenny and Arkwright's water frame. By 1787, Cartwright had developed the power loom. The invention of these machines prepared the way for the extensive manufacture of fabrics. In fact, it laid the foundation of England's supremacy in cottons and woollens.

Meanwhile, through the patient efforts of Watt, in 1769, the steam engine had appeared. In 1785, the first steam engine was used for power in a cotton mill. Similar developments were greatly improving the methods of manufacture in other lines. In 1760, Roebuck introduced a new kind of blast furnace by which iron ore could be smelted with coal instead of with wood as fuel. The first English lock canal was built in 1761; and in 1823 the first railway line was authorized to carry passengers.

**Effect of Inventions on Life.**—The changes produced by these inventions so modified the industrial and social life of England that they are often referred to as the Industrial Revolution. As a matter of fact, the term revolution is not very well chosen, as it seems to suggest sudden change. The length of time during which these changes were occurring was, roughly, one hundred years. By the year 1830, the outlines of modern industrial life had appeared in England. But the day of invention continues; among many others, within the last fifty years, may be mentioned the automobile, the aeroplane, and the radio. Farm machinery has been perfected. Great industries based on chemistry have developed. All these changes have not only accelerated industry generally but have changed social conditions greatly.



**Division of Labour.**—The most outstanding characteristic of the manufacturing industry is the employment to the widest degree of the principle of the division of labour. Instead of the worker being a craftsman and turning out a commodity which is the product of his own handiwork, he specializes upon one part of the process. Adam Smith, the great Scotch economist, in a famous passage describes the advantages of this method in the manufacture of pins.

“To take an example therefore, from a very trifling manufacture; but one in which the division of labour has been very often taken notice of, the trade of the pin-maker; a workman not educated to this business (which the division of labour had rendered a distinct trade), nor acquainted with the use of machinery employed in it (to the invention of which the same division of labour has probably given occasion), could scarce, perhaps, with his utmost industry, make one pin in a day, and certainly could not make twenty. But in the way in which this business is now carried on, not only the whole work is a peculiar trade, but it is divided into a number of branches, of which the greater parts are likewise peculiar trades. One man draws out the wire, another straightens it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations; to put it on is a peculiar business, to whiten the pins is another; it is even a trade by itself to put them into the paper; and the important business of making a pin is, in this manner, divided into about eighteen distinct operations, which, in some manufacturies, are all performed by distinct hands, though in others the same man will sometimes perform two or three of them. I have seen a small manufactory of this kind where only ten men were employed, and where some of them consequently performed two or three distinct operations. But though they were very poor, and therefore but indifferently accommodated with the necessary machinery, they could, when they exerted themselves, make among them about twelve pounds of pins in a day. There are in a pound upwards of four thousand pins of a middling size. These ten persons, therefore, could make among them upwards of forty-eight thousand pins in a day. Each person, therefore, making a tenth part of forty-eight thousand pins, might be considered as making four thousand eight hundred pins in a day. But if they had all wrought separately and independently, and without any of them having been educated to this peculiar business, they certainly could not each of them have made



twenty, perhaps not one pin in a day; that is, certainly not the two hundred and fortieth, perhaps not the four thousand eight hundredth part of what they are at present capable of performing, in consequence of a proper division and combination of their different operations.''<sup>1</sup>

To take another illustration: "Slaughtering on the farm or at the butcher shop is commonly done by two men. In this way two men can butcher two animals in ten hours. But in a big packing house, a gang of 157 men by the minute division of labour in use there were able to handle in a typical working day of ten hours 1,050 cattle"—that is, each man might be considered to have handled six animals.

**Advantages of Specialization.** — The advantage of the principle of the division of labour or specialization has come to be commonly recognized and is applied in industry generally. Broadly speaking, it has three aspects. In the first place, instead of every man doing all kinds of work for himself, he specializes along one line and relies upon others for the other commodities. Thus the various crafts or trades develop. This is an early stage in the evolution of society. Secondly, within the industry itself the processes are minutely divided and subdivided. This is the aspect that Adam Smith describes in pin-making. It is associated with the development of the factory system. That is, instead of work being done in the home the workers congregate in factories where each specializes on a sub-division of the manufacturing process. In the third place, there has developed a territorial division of labour in that certain districts are almost wholly devoted to the manufacture of certain products.

**Localization of Industries.**—The United States census gives seven reasons which may lead to the localization of

<sup>1</sup>Adam Smith, *The Wealth of Nations*, p. 6. (Cannan's edition).



industries. They are: (1) nearness to raw materials; (2) nearness to markets; (3) the availability of water power; (4) a favouring climate; (5) a supply of labour; (6) ease in obtaining the funds to develop industries; (7) the momentum of an early start. Many illustrations could be given to exhibit the effect of these causes. The great pulp mills of eastern Canada are located not far from their supplies of raw material, the pulpwood, and where water power is available. The favouring climate of Lancashire has had much to do with making it the centre of the cotton industry in England. In the United States the location of the great iron and steel industries is determined largely by proximity to iron ore and coal.

**Standardization.**—Next to the division of labour we may note, as a leading characteristic of modern industry, the production of standardized products. Goods are produced of specified grades and qualities and these grades and qualities are maintained year after year. Thus the flour mills standardize certain brands of flour and their peculiar qualities become known and can be relied upon. Standardization is so advantageous that it has been carried back and applied to such products as wheat, apples, cattle and hogs.

When standardization is applied to the production of machinery, it means not only that all machines of a given kind are exactly the same, but that similar parts are exactly the same, and as a result are interchangeable. A part could be taken from one machine and become part of another machine without difficulty. This greatly facilitates the making of repairs. When a breakage does occur, it is possible to replace the broken part speedily. It is unnecessary to have a new part made specially for the machine. It can be secured from spare parts already manu-



factured. This results in an immense saving in both time and labour. Interchangeable and standardized parts are so well known to-day that it is almost impossible to realize the advantage it gives. Thus, the early engineer found that "every bolt and nut was a specialty in itself. . . . All bolts and their corresponding nuts had to be specially marked as belonging to one another, which was specially troublesome when parts of complex machines had to be taken to pieces for repairs." To-day, with regular standard-sized bolts and nuts, all this difficulty is avoided.

**Advantage of Large-scale Production.**—These advances on the technical side of manufacturing have resulted in an increase in size of the individual plant. In the great majority of the manufacturing plants, it has been found more economical to produce the goods in large quantities. Under these conditions, the cost of individual units of the goods is reduced. The advantages of large-scale production are: (1) It permits an extended use of specialized machinery. Specially adapted machines may be employed for doing only one thing. In a small manufacturing plant there will not be sufficient work for such a machine. An "all-round" machine will have to be employed which, while it may do several kinds of work, will not be as efficient as a specialized machine for doing any one particular kind of work. (2) In the same way, large plants permit the most extended use of specialized labour. (3) It is also commonly possible to utilize, in the manufacture of by-products, materials which would otherwise go to waste. Thus, the packing plants are able to utilize, in the production of some product, practically every part of the carcase of an animal. A small butcher shop could not do so. (4) It is possible for large concerns to establish their own



repair shops and also to manufacture certain products which are used in their main business. (5) A large concern can employ experts to investigate and improve its methods of manufacture. Many large companies have chemists or other experts continuously employed in devising better methods of manufacture. (6) A powerful company can purchase raw material in large quantities and so effect a saving. (7) To increase sales the large firm issues elaborate catalogues, advertises extensively and employs a large staff of travelling salesmen. No small firm can afford to do this.

**Law of Increasing Returns.**—Moreover, the general expense of managing the business is spread over a large volume of goods. This means that each unit of the goods carries a smaller part of the cost of management, or, as it is called, a smaller part of the overhead expenses. The cost of a single unit of a commodity may be divided into two parts: the direct cost which is traceable to the article, such as the value of the raw material used, and the indirect costs arising out of the general expense of the business. The direct costs vary in amount with the volume of commodities produced, but are the same for each unit. The indirect costs are fixed more or less definitely for the business, but the amount chargeable to each unit produced varies with the output. This may be illustrated by a simple table:

Amount Produced		General cost of Management	Indirect cost per unit	Direct costs	Direct costs per unit	Total cost of Production	Total cost per unit
20,000	units	\$50,000	\$2.50	\$ 50,000	\$2.50	\$100,000	\$5.00
40,000		50,000	1.25	100,000	2.50	150,000	3.75
50,000		50,000	1.00	125,000	2.50	175,000	3.50



Thus, as the concern grows larger, the total cost per unit of producing the goods grows less in so far as it is possible to increase production without increasing the general expenses of management. This, together with the other influences set forth, explains why large scale production is more economical than small scale. It will be remembered that in the extractive industries, as more capital and labour were applied to a given piece of land, the returns were not proportionately increased. Here, as the industry expands, the cost per unit of the goods produced lessens. In contrast to the law of diminishing returns, this is called the *law of increasing returns*. Manufacturing industries with but few exceptions obey the law of increasing returns.

Of course, this law does not mean that industries can increase in size indefinitely. There comes a point where general costs of management increase rapidly, and further economies in production are impossible. But in many industries, the steel industry, for instance, this point is not reached until the plant is very large indeed.

**Fixed Costs.**—Another aspect of large scale production is the frequency with which it is associated with high fixed or overhead costs. Large business enterprises commonly require extensive plants. These plants represent large investments of capital, and the expense of maintaining them does not vary very much whether they are running at full capacity or only being used partially. Hence there is a constant pressure on such enterprises to run at full or nearly full capacity if at all possible since if they are forced to slacken down they are unable to reduce their costs proportionately. As we shall see later fixed costs play an especially important part in railway transportation. A period of depression means that there is a large amount of productive capacity unused, with corresponding loss to the owners.



The leading characteristics of the manufacturing industries are the extended use of the *principle of the division of labour*, specialization, large-scale production, fixed costs, and the fact that they generally operate under the *law of increasing returns*.

**Comparison of Industries by Value of Manufactured Products.**—According to the census of manufactures in 1941, ranked by the gross value of the products, the five leading groups of manufacturing industries in Canada are iron and its products, \$1,483,169,745; vegetable products, \$897,978,448; wood and paper products, \$892,936,114; non-ferrous metal products, \$726,348,447; animal products, \$708,220,447. The total gross value of manufactured products in 1941 was \$6,076,308,124. The output of the five leading groups of industries is therefore approximately 77% of the whole.

**Comparison of same Industries by Amount of Capital Invested.**—A comparison of the industries listed in the previous paragraph on the basis of the amount of capital employed in each shows that they do not bear the same order. Iron and its products leads but is followed by wood and paper products. The figures are: iron and its products, \$1,138,701,669; wood and paper products, \$1,086,022,546; vegetable products, \$634,728,760; non-ferrous metal products, \$545,862,427; and animal products, \$303,657,373. The total amount of capital in manufacturing is placed at \$4,905,503,966.

In 1941 the cost of materials used for manufactures in Canada was \$3,296,547,019, and the value added by manufacturing was \$2,605,119,788. The leading manufacturing province is Ontario—which is responsible for over half of the total. Quebec comes next with 30 per cent. of the total. The balance is divided amongst the other seven provinces.



## CHAPTER VII

### BUSINESS ORGANIZATION

**Organization.**—Business may be organized (1) as an individual enterprise; (2) as a partnership; (3) as a corporation; (4) as a department of government; (5) as a co-operative association. The simplest of these forms is the individual enterprise. Here the individual *entrepreneur* not only develops and manages the enterprise himself, but generally supplies at least part of the labour and funds required. The form is well known. The small shopkeeper who owns and directs his own business and the farmer in his business relationships are examples. As a rule the individual farmer owns his land and uses his own capital, operating his farm as an independent unit of production.

**Individual System.**—The individual system of enterprise, apart from its simplicity, which makes it the most suitable form for small shops or small-scale units of production either in manufacturing or farming, has certain advantages which lead in some instances to its retention after the business has grown to a considerable size. An enterprise carried on by the owner is usually assured of interested management. All the risks and all the gains are his alone, and there is a direct relationship between efficiency and reward. The owner therefore has an incentive to manage his business carefully so that he may obtain from it as large a profit as possible. Individual management means unified control. There is no chance of divided



counsel. Moreover, when an individual has complete control he is in a position to maintain absolute secrecy as to what plans he intends to follow. He can therefore prevent his competitors from gaining a premature knowledge of his activities.

On the other hand, a one-man enterprise is faced with certain disadvantages. If the business is successful, it may easily grow beyond the control of a single individual. The supervision of parts of it will then have to be entrusted to employees, with a probable loss of interest and efficiency. Moreover, if the owner desires to develop his business more extensively and requires financial aid to carry out his plans, he often finds it difficult to borrow the money necessary for such extension. Many businesses, built up by individuals, are finally turned into corporations because the latter have proved more successful in borrowing funds. Another disability attendant upon individually owned enterprises is that the death of the owner destroys the continuity of the business. Estates must be settled and if the business is to be continued a new owner must be found. It is impossible for the concern to carry on without some break, while these changes are taking place. We therefore find individual enterprise confined chiefly to farming, small shops, and other businesses of moderate size.

**Partnership System.**—The partnership is a second type of organization. Here two or more partners enter into an agreement, known as a partnership agreement, to conduct a business. They may hold equal shares in this business, or the proportion of ownership may be in some other fixed ratio. Where contracts are made, any member of the firm may bind the partnership. In case of losses the partners are jointly and severally liable.

While in some ways a partnership is closely related to



the individual system, it has its own peculiar features. A partnership may unite in one concern different kinds of skill. Thus, one partner may understand the technical or factory side of a plant, another partner may be skilful in the buying or selling end of the business. In this way it is possible to build up a firm of members who are much stronger, working together unitedly in a partnership, than they would be if each were in charge of an independent enterprise. A partnership also brings to a business the combined financial resources of all its members.

On the other hand, since the act of any partner can bind the partnership in a legal contract and since members of the partnership are jointly and severally liable for losses which the partnership may suffer, there is a risk in entering into a partnership without a full knowledge of the ability and integrity of the proposed members. There are many instances where men with considerable wealth have lost heavily by entering into a partnership with a relatively poor man who did not turn out well. *When losses occurred, these were of course borne by the rich member of the firm.* Further, when a partner dies, the partnership is dissolved and the business, just as in the case of the individual enterprise, has to be re-organized. This entails legalities and often the necessity of seeking a new partner. A suitable member may be difficult to find and the business may suffer from the consequent derangement and forced re-organization.

**Corporation System.**—The development of large-scale production, with demands for large sums of money to develop and to carry on growing enterprises, led industry to seek a more convenient form of organization. This was found in the corporation. This has become the *dominant form of business organization* and is, therefore, worthy of



careful examination. A corporation may be defined as a *body (corpus) consisting of a number of natural or artificial persons established by law for some specific purpose or purposes and continued by a succession of members.* This definition will require some study before the nature of a corporation becomes fully clear. In the first place, by becoming a corporation, a group of individuals are able to act as one. This power is conferred upon them by a definite grant of law. Unlike a natural living person, however, the powers of a corporation are strictly limited by the Act which creates it. A natural person may enter into any line of business or activity, but a group, organized as a corporation, is limited in its actions to the purposes set forth by its charter. Further, a corporation is continued by a succession of members. This means that the death of one of the individuals in the group does not cause the corporation to be dissolved; whether his share be bought by someone else or be handled by the administrator of his estate, the corporation continues without legal change.

Corporations are called artificial persons to distinguish them from natural human beings. Corporations themselves may be formed whose membership is composed partly of natural persons and partly of other corporations. That is, corporations may own shares in other corporations.

The members of a corporation are known as *shareholders* or stockholders, and a shareholder has an undivided share in the assets and liabilities of the corporation. The common stock represents the whole capital sum invested. Individual owners are said to have shares in the common stock. The liability of the shareholder, however, does not extend beyond the fully paid-up par value of his



shares. The par value of a share is commonly \$100; and, if the holder has paid up this amount, his liability ceases at that point, no matter what the fortunes of the corporation as a business enterprise may be. That is, the shares are *non-assessable*. In the event of a corporation sustaining losses, these losses can not be collected from the shareholders beyond the fully paid-up par value of the shares. Their liability is thus limited. In this respect the shareholders of a corporation differ from the members of a partnership. In Canada there has been one exception to this general rule. The shareholder of a chartered bank assumed a double liability: if he held a share of paid-up par value of \$100, and the bank failed and the assets were insufficient to settle the debts of the institution, the creditors could collect from the shareholder another \$100.

Sometimes stock is issued that is known as preferred stock. The holders of shares of *preferred* stock have a preference in the receipt of income from the business. They receive a fixed dividend out of the profits before any distribution is made to the holders of the common stock. If the company is dissolved the holders of preferred stock generally enjoy a preference over the holders of common stock both in the distribution of profits and tangible assets.

The two great advantages that a corporation possesses over other forms of business organizations are (1) the fact that a corporation does not die or dissolve with the death of a member, and (2) the fact that its shares carry a limited liability. The first of these advantages makes for permanency and stability, thus overcoming one of the chief objections to the partnership. The second lessens a corporation's difficulties in securing funds for an enterprise. The investor, knowing the extent of his liability, is more willing to invest in a corporation than in an enterprise so



organized that he cannot tell to what extent he would be involved if the concern failed. These advantages account for the preponderance of the corporate form of organization in business to-day.

The corporate form is also elastic. Corporations vary in size from those with a few thousand dollars capital to very large corporations with resources amounting to millions of dollars. Corporations may be classified as (1) public corporations such as are formed to help carry out a plan of government—for example, the corporation of the city of Edmonton; (2) private corporations; while the object of these is usually business, many clubs and societies are organized in this way. Business corporations may be purely private companies engaged in manufacturing or trading, or semi-public companies operating railroads, steamships or hotels. In the latter case, the service rendered brings the company into very close contact with the general public.

**Incorporation.**—While all corporations owe their existence to some act of law, incorporation may be achieved in one of two ways. In Canada, for railways and banks, a special legislative act is required to secure a charter of incorporation. The advantage of this method is that it is possible for legislators to scrutinize carefully the plans of the proposed company and, if the project does not seem sound, to refuse a charter. On the other hand, it is a costly method and instances have been known where special acts, passed by bribery, and against the wishes of the people, granted companies too extensive powers. *Abuses of this kind led to the adoption of a second method of incorporation—that is, by an enabling act.*

Parliament passes a general act setting forth the powers, duties and responsibilities of all corporations. The act



also states a method by which a company can secure a charter. It provides for an *application* to a designated officer of the government. This application gives the name of the proposed company, the amount of capital stock, the location of the head office, the object for which incorporation is sought, the names of the applicants, and other information. The application is generally drawn in such a form that when approved and registered it becomes the *charter* of the company.

A corporation acts through its *officers*. The shareholders elect a Board of Directors and these appoint a president, a vice-president, a secretary, and other executive officials. The supervision of the affairs of the company is in the hands of the *Board of Directors*. The law generally stipulates that there shall not be less than three directors; in many instances, the number is placed at five, and in some cases at seven or nine.

The evidence of membership in a corporation is a share certificate. The shareholder's name is also entered in a book known as a share register book. The *shareholders* are entitled to vote at meetings of the corporation, pass by-laws, elect directors, receive an annual statement from the directors and also receive dividends when these are declared. A shareholder in a corporation may sell his share to another if he wishes to withdraw from the company. The change may be very simply accomplished by a transfer order. On presentation to the proper officer in the corporation, the name of the new owner is entered in the share register book, the old share certificate cancelled and a new certificate issued. The stock exchange buys and sells extensively the shares of such great corporations as the Canadian Pacific Railway.



**Bonds, Debentures.**—When a corporation desires to borrow money it sells bonds or debentures. These are of various types, but mortgage bonds are the most familiar. They get their name from the fact that they are based on a mortgage. Let us suppose that a company wishes to borrow \$50,000 and offers as security for its repayment a mortgage on its property. A mortgage is executed against the property. As no one person would, commonly, have \$50,000 to loan, the mortgage is placed in the hands of a trustee, and bonds are issued on its security. The trustee represents the bondholders. These bonds are made of convenient sizes, \$1,000, \$500, \$100. They are sold to investors, who receive interest on them at a stipulated rate per year and the return of the principal sum at its due date. If for any reason the company fails to fulfil its obligations either in paying interest or in repaying the principal, the trustee steps in and acts on behalf of the bondholders by virtue of the mortgage he holds for them on the property. The important thing to recognize about a *bond* is that it represents a loan to the corporation, while a *share* means a share in the business. Shareholders receive dividends on their investments, bondholders receive interest on their loans.

The ease with which both shares and bonds may be bought and sold has greatly added to the ease with which funds may be secured by corporations. The New York stock exchange is a great centre where *entrepreneurs* who desire to obtain funds bargain with investors who have money to loan. It is also a great centre where bondholders and shareholders can by sale and purchase transfer their investments from one industry to another. In Canada the leading centre is Montreal, though considerable dealings take place in Toronto, Winnipeg, and Vancouver.

(19) What happens when a company wishes to borrow \$50,000.



**Consumers' Co-operation.**—The distinctive feature in an enterprise organized co-operatively is that the individuals in the association manage the enterprise themselves and thereby dispense with the services of an *entrepreneur*, that is, the co-operators take over the function of management, accept the risks and claim what profits may accrue.

The beginning of co-operation is usually dated from the organization, in England, of the "Equitable Pioneers of Rochdale". In 1844 this society was formed for the purpose of carrying on a grocery store. Goods were purchased at wholesale prices and sold at current retail prices just as other grocery stores, but in this instance, profits were divided among the members in proportion to their purchases. The venture proved successful and many other associations were founded on the same model.

One very serious handicap to their success lay in the existing Common Law. The right to sue their officers for misuse of funds, the right to hold land as investment, the right to invest money, and the extension of the principle of the limited liability of members to include these societies were granted in a series of Acts from 1846 to 1852. Finally, in 1862 these individual Acts were repealed and a new combined Act embodying their terms was passed.

The associations soon grouped themselves together to form organizations for the purpose of acting as wholesalers, producers and bankers. These larger organizations followed the same general principles of profit-sharing. In 1941 the total membership of co-operative societies in Great Britain was 8,773,255 with an aggregate trade for the year of £302,246,329.

The history of consumers' co-operation in Canada does not reveal any outstanding success. Begun in 1861 with the organization of a co-operative store in a mining village in



Nova Scotia many such ventures have failed due to lack of business management. A more promising field has been the co-operative purchasing of feedstuffs, equipment and other farmers' supplies. Membership in these organizations in 1941 was placed at 75,280 with an annual business of \$21,956,760.

**Co-operative Organizations in Western Canada.**—Co-operative organizations have become of great importance in the economic life of the Canadian West. But these organizations are chiefly *selling* organizations in contrast to the co-operative *buying* organizations in Great Britain and the variety of forms found in Europe. They owe their inception to dissatisfaction with existing methods of marketing. In a considerable number of instances they were made possible by initial government assistance in the form of loans or guarantees. First and foremost among these organizations were the Saskatchewan Co-operative Elevator Company, Limited, and the United Grain Growers, Limited. These farmers' companies were the largest grain companies operating in Canada. The United Grain Growers has country elevators in the three provinces. The Saskatchewan Co-operative Elevator Company had its line of houses in Saskatchewan. Both companies either directly or through subsidiary companies had large terminal elevators at the head of the Great Lakes and had export connections as well. The United Grain Growers is the single representative of this type of organization now, the Saskatchewan Co-operative Elevator Company having been absorbed by the Saskatchewan Wheat Pool.

In form the United Grain Growers, Limited differs from the private line companies in the fact that the shares are held by farmers, with safeguards to prevent concentration of ownership. The shareholders in each local group are



represented by delegates at the annual meeting. The United Grain Growers, Limited is primarily a grain marketing company, but, in addition, undertakes the sale of farm supplies, conducts an insurance business, and publishes a rural magazine. It has discontinued the manufacture of lumber, the marketing of livestock and the sale of farm machinery, in which it was formerly engaged.

Co-operative creameries, co-operative wool-growers' associations, and various other co-operative ventures have also been successfully established in the Prairie Provinces.

In the fruit and vegetable growing areas of Canada co-operatives were credited in 1941 with a volume of business amounting to \$11,377,026. The marketing of dairy products and of livestock co-operatively has achieved substantial importance. In 1941 associations marketing dairy products had a total business of \$24,214,515, and livestock associations \$26,036,814. Six associations handling tobacco leaf had a total business of \$11,295,152. In 1941 co-operative associations among fishermen on Canada's sea coasts reported a membership of approximately 4,500 with a volume of business amounting to \$2,645,698.

**The Wheat Pools.**—The organization of selling pools has been a striking feature of co-operative organization in Western Canada. Of these the most important are the wheat pools. The first to be organized was the Alberta Co-operative Wheat Producers, Limited. In 1924 similar pools were organized by the farmers of Saskatchewan and Manitoba. This was followed in the same year by the organization of a central selling agency, the Canadian Co-operative Wheat Producers, Limited, composed of the three provincial pools.

The distinctive features of the wheat pools are that they are non-profit organizations to which a farmer may contract



to deliver all his marketable wheat. Contracts run for five years. As soon as practicable after the farmer delivered his wheat he received an advance payment upon it; this was followed by an interim payment and a final payment after the operations of the year had been completed.

This method of marketing aimed at two results: (1) to assure more orderly marketing of the western wheat crop by controlling through a central selling agency the supply of wheat offered for sale in the autumn to prevent a glut on the market; (2) to assure the farmer that he would not suffer from the daily fluctuations of prices. Thus the farmer could arrange his deliveries of wheat at such times as best suit his convenience.

On this basis the wheat pools operated with marked success until the autumn of 1929 when a severe slump occurred in the wheat market. This caused financial difficulties which were met by securing guarantees from the three provincial governments. But the continued decline in wheat prices in 1930 led to further difficulties. Eventually the disposal of the central selling agency's accumulated stocks was entrusted to a representative of the federal government. The central selling agency ceased to function but each provincial pool has continued its important elevator operations and has developed on modified lines its own marketing organization. Indebtedness incurred to the three provincial governments is being gradually liquidated.

**The Canadian Wheat Board.**—The intervention of the Federal Government in wheat marketing led to the establishment of the Canadian Wheat Board. This body was charged with the responsibility of disposing of surplus supplies of Canadian wheat and was also used as an agency to give effect to measures designed to stabilize the price



of wheat. Each year the Federal Government fixes a price for wheat at which the Board is prepared to purchase it from the producer. If the market price falls below this level wheat is delivered to the Board otherwise it tends to be sold through private channels of trade.

With the advent of the second world war the Canadian Wheat Board became the instrument through which the Canadian Government controlled the production of wheat and marketed supplies to allied and neutral nations. Beginning in 1942 minimum prices for barley and oats were also established, a fixed price was set for flax, and the Canadian Wheat Board designated as the only agency to receive flax seed from producers in Canada. In order to conduct its operations the Board negotiates annually an agreement with the elevator companies, making them, in effect, its agents.

**Co-operative Credit Organizations.**—In Europe co-operative credit organizations have been in operation for half a century and their influence has become very extensive. In 1900 a small co-operative credit institution was established at Levis in the province of Quebec. This institution was successful and the idea spread throughout the parishes of that province. The number of these small co-operative banks has steadily increased, and the founder of the first, Alphonse Desjardins, has been called the father of co-operative credit banks in America.

The general weakness of the co-operative form of organization is the danger of underestimating the importance of skilful management. It is often assumed that anyone can manage a business and the co-operators appoint one of their own number, without any special experience, to act as manager. As a result many promising co-operative



enterprises have failed. Moreover, in times of depression it becomes hard to retain the loyalty of members of the association, and this increases the difficulties of management. In some instances this has been met by requiring members to sign a long-term contract.

The desirable feature of co-operation is that it extends the practice of self-help. When farmers organize their own selling agencies, they do not relinquish their control over their products until these products reach the consumer. Thus they eliminate the possibility of being exploited by those who act as middlemen between the producer and the consumer of goods. Another merit of co-operation is that by bringing a group of members together with equal interest in an enterprise, it strengthens and solidifies the life of the social group.

**Public Utilities.**—Certain services are usually placed in the hands of the government. The best example is the Post Office, which in practically every country is under government operation. In Canada, the Prairie Provinces operate telephone systems. In the cities, street railways, gas plants, and electric lighting plants are very often operated by the civic corporation. The principle of government ownership is thus widely developed. It is particularly applied, as in the examples cited, to the operation of public utilities. The importance of their services to the public has led to some reluctance to permit such utilities to remain in private hands. The public feels that there is a grave danger that private ownership of these services may result in higher charges than the cost of operation warrants. The absence of competition may permit a private company, with everything in its own hands, to exploit the consumer either through high prices or poor service or both.



It is alleged, on the other hand, that publicly-owned enterprises are not very progressive and are often more costly in operation. There is, undoubtedly, danger that these defects may develop, but there is no genuine reason why this should be the case. The vigilance of the public exercised through the ballot is a means of control. Experience shows, however, that *legislators*, not risking their own funds in a large way in the venture, are apt to be *less careful* in launching into *expenditure*, and in *choice of managers*, than private individuals. *Political* considerations not only often *influence* harmfully the preliminary plans of an enterprise, but frequently lead to *interference* in the conduct of the business. Moreover it may be difficult to dispose of an inefficient manager after he has been placed in charge of a government or civic enterprise, because of *political influence*. It is also true that publicly-owned businesses appear to be less energetically operated than privately-owned enterprises. Managers who "play safe" and make no serious mistakes in routine administration are reasonably secure in their position. This lessens the incentive to take the chances of an experiment turning out badly, even though success might greatly improve the service. But if there is good government, alert to this danger, these government-owned enterprises will be competently operated.

These various forms of business organization exist side by side in modern society. In each instance they represent a method of effectively organizing production. The end of organization is to combine efficiently land, labour, and capital for the production of economic goods.



## CHAPTER VIII

### BUSINESS AND THE STATE

In the preceding chapter we have noted the various forms of organization that business undertakings may assume. In this chapter we propose to point out how business organization and the methods of carrying on industry may be and are modified by the action of the state or government. This is a question around which much controversy centres. In every country different views have prevailed from time to time on how much the state should take upon itself to direct, and what it should leave, with as little interference as possible, to individual initiative and enterprise.

**Laissez-Faire.**—In England before the Industrial Revolution, industry was rather strictly controlled by law and by government regulations. Many of these laws and regulations, however, were not suited to the changes in industrial methods brought about by new inventions. The attempt to enforce them created difficulties. The government of the period proved to be uninformed and unimaginative in dealing with practical problems of this nature. "Almost everything which the state did in the eighteenth century in excess of its minimum functions was, or seemed, injurious or unsuccessful."

Hence there grew up the belief that the government should not interfere with the methods of industry, but allow individuals to compete freely with each other. It was thought that under free competition not only would



there be the strongest possible incentive to individuals to put forth their greatest efforts to produce wealth but that the ablest men in organizing and directing industry would come to the top. It was believed that this would be the most likely way to increase wealth generally and so to promote social welfare. At the same time this view provided a justification for the accumulation of riches by individuals.

This manner of thinking came to be known as *laissez-faire* from a phrase first used by the Marquis d'Argenson about 1751. To govern better, he said, one must govern less. It was considered that the duties of the state should be limited to the protection of its citizens from aggression, i.e., maintaining an army or navy or both, and to the administration of justice. The latter duty had two aspects. In the first place, where individuals had entered into an agreement or contract with each other, in case of default the state would intervene to enforce the contract and would adjudicate in cases of dispute over the terms of the agreement. In the second place, the state would act to protect an individual from violence and to assure to him the free use and disposal of his property. Thus *laissez-faire* contemplated reducing the functions of the state to the barest minimum.

**Regulated Competition.**—But although the old regulations governing industry were being gradually broken down in England about the end of the eighteenth century, it was not long before the state found itself compelled to intervene for the purpose of protecting certain classes. The introduction of machinery and the transfer of manufacturing to large factories left many of the working classes in a pitiful condition. Their skill as craftsmen was no longer in demand, and many of the operations con-



nected with tending machinery were sufficiently simple to permit the employment of women and children. Employers took full advantage of this situation. Women and children were employed for long hours of labour under unhealthy conditions at very low wages. The poverty of the workers made it possible for the employers to exact the harshest terms. Parliament was finally forced to interfere and did so in the face of strenuous opposition from the employers.

The first steps taken were designed to protect pauper children from being forced to work unreasonably long hours under conditions of cruelty and neglect. In 1802 an act was passed in Great Britain with this purpose but it only went a short way towards curing the evil. More comprehensive measures came later which were not only designed to control the hours and conditions of labour but also provided for the appointment of government inspectors charged with the duty of seeing that the law was enforced. Other acts extended protection to women workers. All types of industry, including mining, and all workers gradually came under control of laws and regulations enforced with a view to protecting their health and safety. All these measures represent a system of social control over industry at variance with the original idea of free competition.

The intervention of the state in trade and industry has not been limited to protecting the workman and determining his relationship to his employer, but in almost every country has extended in many directions. By far the larger part of legislation in many states is concerned with regulating the activity of economic groups with a view to safeguarding the interests of the general public. In Canada, for instance, the railways come under the control of the



Railway Act and Board of Railway Commissioners; the chartered banks are subject to the Bank Act which is revised every ten years. The Bank of Canada has recently been instituted for the purpose of exercising a general control over money and credit; the Board of Grain Commissioners administers the Canada Grain Act controlling the methods by which grain is handled. In certain provinces public utility boards or commissioners exercise control over the rates charged and services furnished by public utility companies. Moreover, in its policy of taxation the state lays progressively heavier burdens of taxation on the man of wealth. There has been a continuous retreat from the principles of *laissez-faire* and a great extension of detailed regulation over the methods by which trade and industry are conducted.

But while its liberty of action has been progressively curtailed in the public interest private enterprise remains at the centre of the economic life in most countries. It is still believed that the strongest incentive to economic effort lies in granting to the individual freedom of initiative in producing goods and in allowing him to retain the profits which result if he is successful. Competition continues as a ruling force in business though it is now regulated in the interests of fair play and social stability. The modern economic world has become so complicated and so inter-related in its activities that this is an absolute necessity. As weakness or defects in the system are revealed further measures of control are devised. While these modify, they do not destroy the essential features of capitalism. The system may be described as one of regulated competition.

**Socialism.**—An alternative system to capitalism is offered by socialism. Socialism arose in the nineteenth century in Europe where masses of the wage-earning population were



living in conditions of extreme poverty surrounded by wealth. Much of this wealth was derived from the control of capital and the direction of industry. Various forms of socialism exist but they have in common the idea that the present capitalistic organization of society is unjust and should be abolished. Of these forms of socialism the best known is that associated with Karl Marx, who lived between 1818 and 1883 and, as an exile from Germany, spent his mature life in London where he studied the effects of competition and the capitalistic system upon the lives of the wage earners.

Marx maintained that competition and the private ownership of the means of production permitted the employer to grind down wage earners and to keep them in a state of insecurity and destitution. He believed, however, that through competition capitalism would ultimately destroy itself, but in such a way that the ground would be cleared for a new organization of society based on the communistic ideal expressed in the maxim, "From each according to his capacity, to each according to his needs." Briefly, this meant that each person would work as he was able, but he would not be paid on the value of his work but upon the basis of his needs. Marx looked to the day when the labouring classes, united into a revolutionary party, would capture the organization of the state and set up a co-operative commonwealth with this ideal. Marxian socialism has also been called revolutionary socialism when the emphasis is placed on class struggle and on the need for a workers' revolution to seize power, and is called communism when the reference is rather to the new form of organization that it is intended to create.

Towards the end of the nineteenth century the socialists had strong groups in many European countries. Many



in these groups, however, did not retain the fierce revolutionary spirit inherent in Marxian socialism. Their influence was felt chiefly in securing the passage of laws designed to protect and to aid the wage earner, and in municipal government in promoting the public ownership of such enterprises as transportation, water and lighting systems. The public ownership of such utilities has come to be regarded as state or municipal socialism. It is argued that this represents the people taking over the control of these types of business from private capitalism for public use. This form of socialism is well known in Canada. It is rather difficult, however, at the time to draw the line between what is state socialism and what might be called state capitalism. Where a state takes over a business enterprise with considerations of social betterment uppermost the result is state socialism. On the other hand, the state may conduct a business with the same motives that govern private business and then have state capitalism.

**The Soviet Economic System.**—During the course of the world war the Russian government collapsed and in October of 1917 the Russian revolutionary socialists under Lenin seized supreme power. The Russian word "soviet" means simply council. In the revolution, soviets or councils composed of delegates chosen by workers in factories and workshops became the basis of the structure of Russian government. The Bolsheviki were the majority party in these soviets. Hence the word Bolshevik and soviet are both used to denote the present form of Russian organization and government.

Upon achieving power the Bolsheviki at once entered upon the task of remoulding Russian economic life to make it conform to the ideals of the Marxian co-operative com-



monwealth. All industries were "nationalized"; that is, all lands, plants and factories, and financial, transportation and other economic enterprises were seized by the soviets and declared to be the property of the state. Their operation was placed under soviet officials. In industry, in commerce, in finance and in agriculture private ownership and operation have disappeared or are being destroyed. Russia is now an almost completely socialized state.

Control of the whole vast structure is exercised through the soviets. At the base of this structure are village and town soviets. Above them are district soviets and regional congresses. At the top is the All Union Congress of the Soviets. Between sessions executive committees exercise power. The executive committee of the soviet congress is the council of commissars to which commissariats are responsible. These commissariats are in charge of industry, trade and finance. Within the organization many special bodies have been set up to deal with special problems.

Under this system all directors of industries and all workers are employees of the state. The wages they receive are fixed and paid by the state. The goods which they purchase are sold in state stores at prices fixed by the state. Thus the state determines the standard of living of all classes. Stores situated near factories, where the workmen deal, are usually assured of a better supply of the available foodstuffs than are those catering to office workers and the general public.

Actually the soviet state is a dictatorship under the control of the communist party, a small minority of the total population of Russia. The soviet electorate is limited to those engaged in productive labour and the vote of the industrial worker until recently was given as much weight



as that of five rural inhabitants. No provision is made for secret voting and no party tickets except those of the communist party are allowed. In the local soviets the majority of the voters are not members of the communist party, but the inner board of control is always composed of communists. Stalin, key man in the communist party, is the most powerful individual in Russia. Thus the soviet state is an agency to maintain the domination of the communist party and this is justified on the ground that it represents a transitional stage between capitalism and communism. It is assumed that at some future date, as workers develop loyalty to their own class and to communism, the co-operative commonwealth conceived by Marx will be realized.

The Soviet Government, at its inception, had to contend with unusually difficult internal problems. Nevertheless, it greatly increased the industrial equipment of Russia though at the expense of a very low standard of living for the workers. In certain respects it has influenced the outlook of capitalistic countries, notably in connection with the value of planned economic life. On the other hand, the Soviet economic system itself has shown signs of evolution along certain lines, such as basing the payment of wages by results, that would have been considered, at the outset of its career, as contrary to communistic principles. As time has gone by there has also been an increasing emphasis upon Russia as a national state, and less emphasis upon the international aspects of communism. Actually the Soviet appears to be farther away from the ideals of the co-operative commonwealth than it was in the earlier years of its development. The Soviet, however, retains complete control of the economic life of the state.

The tremendous military power which Russia displayed



in the second world war, astonished the world and provided an impressive demonstration of the vitality of the Soviet system. The close association of the Soviet Government with the governments of the United States and Great Britain, for the common objective of defeating Nazism, has done much to break down mutual distrust and suspicion, despite differences in political theory and economic organization, between Russia and the English speaking world.

**Fascism and Nazism.**—Russia was not the only country where a change of rulers occurred following the first world war. Fascism developed in Italy partly as a reaction against disorders in industry fomented by revolutionary societies and partly as a protest against weak and inefficient parliamentary government. Mussolini, leader and organizer of the Fascists, drew his support from (1) discontented ex-soldiers who demanded drastic economic reforms combined with a reconstruction of the state, and (2), the owners of small businesses and small farmers who disliked socialism. In October, 1922, he seized power and the Fascists became the governing party of Italy.

Under the Fascists Italy became a totalitarian state. While parliament continued to exist it was used merely to register decisions. The real source of authority was the Fascist party. Fascism magnified the importance of the the state and insisted upon its ultimate right to control every phase of the economic life of the nation. Each industry was placed under the control of a corporate organization in which both employers and employees were represented but the former were dominant.

At first Mussolini put forth vigorous efforts to develop Italy and for some years the country made substantial economic progress. But under the spell of his strongly



nationalistic policy Mussolini developed illusions of grandeur and embarked upon a programme of expanding Italian territory. This led him into an unwarranted attack upon Ethiopia which he subjugated. He arrived at an understanding with Hitler and joined him in 1940 in the second world war with the expectation of sharing in the spoils of victory. In the face of repeated defeats, however, Mussolini was overthrown and the Fascist regime came to an inglorious end.

Adolph Hitler came into public notice in connection with an unsuccessful insurrection in Munich in 1923. After his release from imprisonment which followed, he devoted all his energies to promoting the growth of the National Socialist Party, the members of which were commonly known as "Nazis". Circumstances combined to give Hitler his opportunity. The German people were smarting from their defeat in the first world war; currency inflation had ruined the middle classes; democratic government was not notably successful. The strong military caste was looking for a leader that would enable it to regain its lost position, while the great industrial leaders were fearful of Russia.

The ideas with which Hitler appealed to the German people were: (1), opposition to Marxian socialism; (2), opposition to democracy and parliamentary government; (3), rejection of individual rights; (4), belief in violence as an instrument of political change, and, as a general unifying idea, (5), an extreme assertion of nationalism under the guise of the racial superiority of the German people. Hitler did not, however, gain power until the onset of the great depression in 1930, with its unemployment, gave him the support of large numbers of the German people.



Once in control of authority Hitler treated his opponents with unequalled harshness and brutality. He met the problem of unemployment by increasing the armed forces and diverting industry into the production of military supplies and the construction of military roads. As the military strength of the nation grew Hitler's foreign policy became increasingly truculent. Under threat of war he annexed Austria subsequently seizing Czechoslovakia. In 1939 his attack on Poland, without just cause, provoked the second world war.

The magnitude of the forces required to reduce Hitler to defeat testifies to the deadly thoroughness with which he made his preparations to achieve world domination. The final result was the complete defeat of the German armies, prodigious losses in manpower and the almost utter destruction of Germany's great industrial cities. Germany will require at least a generation to recover from the appalling losses she has sustained as a result of the Nazi regime.

Of the three totalitarian governments which arose out of the conditions produced by the first world war that of the Soviets alone remains. Russia's part in the second world war has greatly increased her prestige. Between the Soviet outlook and that of the Nazis there existed an unbridgeable gulf. The Nazi regime was built upon doctrines of racial superiority, of aggression and of the exploitation of satellite states. The Soviet policy, in contrast, embodied the doctrine of mass progress and human betterment. In pursuing these ends the Soviet occupies common ground with the western democracies. The latter contemplate no sharp break with the past but endeavour to cure specific economic evils as they are revealed.



## CHAPTER IX

### EXCHANGE

In preceding chapters we have discussed the nature of man's wants and traced the forms of industry which have developed to satisfy these wants. Briefly, under consumption we have endeavoured to explain the nature of demand, and under production the methods of supply. Demand and supply are familiar words. They tell us little, however, unless we remember that demand is based on complex human wants and that supply is based on long and intricate processes of production. Uniting these two aspects of our economic life is the business of selling and buying, or to speak more generally there is an *exchange of goods*.

**Exchange.**—People exchange goods with each other because in doing so they increase their supply of the particular goods that yield to them the greatest satisfaction. In its simplest form exchange is by *barter*. Goods are bartered or traded directly for other goods. This method continues among primitive tribes and peoples, but among civilized nations it has long since been replaced by a more efficient method. Individuals now sell the goods of which they have a surplus to the members of one group, and buy the goods which they lack from the members of another group. This is made possible by the use of *money*.

The *advantages of exchange* are: (1) It enables people who live in certain natural environments to enjoy the various products of other countries. The inhabitants of a



country with a warm climate exchange their fruits and spices for the products of the temperate zone. Exchange thus makes available commodities that otherwise would be quite unobtainable. (2) As a result of taste, custom, or training some people value certain commodities more highly than other people. By exchange, goods are traded with an increase of satisfaction and advantage to both. (3) Different people display different aptitudes and different kinds of ability. Exchange allows individuals and nations to devote themselves to the particular lines of work for which their skill and temperament especially suit them. The farmer exchanges the product of the farm for that of the factory. The French workman turns out articles of taste and delicacy which he exchanges for the less fine staple products of other nations. English machinery and English textiles are known around the globe. In return, England imports raw materials and food stuffs.

The modern world has been described as an exchange society. Exchange is an example of what might be termed unconscious co-operation. By producing to sell on the market and by depending upon the market for procuring his supplies, the individual relies upon the co-operation of other individuals. He assumes that some will buy his products and that others will sell to him the commodities he needs. Incidentally, this unconscious co-operation makes it possible to secure the economies of large-scale production and of the division of labour. The larger part of the world is thus bound together by the bonds of trade and commerce.

**Markets.**—The institutions that *facilitate exchange* are many, for here also the principle of specialization and the division of labour is employed to a wide degree. At the



centre we have a great variety of markets. For the exchange of wheat in North America there are local markets at the country elevators, larger markets at Chicago, Minneapolis, and Winnipeg, and in Europe markets of world-wide significance at Liverpool, Hamburg and Marseilles. Wholesale houses buy goods from the manufacturers and sell to the retailers, who in turn sell these goods to the public. In the great financial centres, such as London and New York, there are markets for the control of capital where the borrower and lender meet. Men sell their services to employers, though there are few organized markets for the hiring of labour. At every turn, nevertheless, we encounter buying and selling. Every producer and every consumer seeks a market. The term *market* does not mean any particular market place in which things are bought and sold, but the whole of any region in which buying and selling is freely carried on.

Closely associated with markets are two great agencies which facilitate exchange. These are *transportation* and *money*. Without modern systems of transportation our markets would be only of local significance and of small dimensions. Without money, banks, and financial institutions, exchange would have to be carried on by barter. In the present chapter we shall study exchange. In succeeding chapters we shall study the auxiliary services of transportation and of money and banking.

An *exchange* means that a certain definite quantity of one commodity is traded for a certain definite quantity of another commodity. Obviously if it requires a large quantity of one commodity to procure a small quantity of another, the first has a low exchange value in relation to the second and the second has a high exchange value in relation to the first. Society has found a convenient way



by which it can tell the exchange value of any commodity in its relation to any other commodity by employing one certain commodity as a measure of value. This commodity is known as money. *The rate at which a unit of any commodity will exchange for units of money is its price.* If it requires a lot of money to purchase a commodity we refer to it as being *high priced*, or as having high exchange value. If a commodity may be purchased for a small amount of money we say it is *low priced*. The qualifications "high priced" and "low priced" are used also in two other senses: (1) when the price of a commodity differs widely from the price of other commodities of similar character and usefulness; (2) when the price of a commodity shows a marked deviation from its usual level.

The market report that certain goods are high priced and others low priced introduces the problem of exchange value. We wish to understand why certain goods of apparently slight importance to the world, such as diamonds, should be high priced, while other goods, such as bread, should be sold at a relatively low price. We can only understand this problem by knowing exactly in what manner the market price of a commodity is established. Let us imagine that an equal number of buyers and sellers meet on a certain market. All are intent upon buying or selling, but with certain mental reservations as to what is the lowest or highest price at which they will exchange. Let us suppose that the sellers have each one unit to sell and that the lowest price each would accept is as follows:

Seller	number	1	would	not	sell	below	4
"	"	2	"	"	"	"	5
"	"	3	"	"	"	"	6
"	"	4	"	"	"	"	7
"	"	5	"	"	"	"	8



On the demand side of the market are five buyers and each individual has determined upon the highest price he will pay.

Buyer number	1	would not pay more than	8
"	"	2	"
"	"	3	"
"	"	4	"
"	"	5	"

Naturally, all the sellers would prefer to sell their supplies at a higher rate than the price that they would actually accept if forced to do so, and likewise all the buyers are anxious to buy as cheaply as possible. Now if the buyers and the sellers met as five individual pairs working independently of each other, the five units, although exactly the same, might change hands at five different prices. This would depend upon the skill of the individual traders; in one instance the seller might be forced down to the lowest price he would take, in another the buyer be persuaded to pay his top figure. Since, however, all buyers and sellers are together in the market place and in free intercourse with each other and bids and offers cannot be made secretly, we must seek the one price that will be established between them. At price 4 there would be only one unit supplied and five units demanded. At 5 two units would be offered and four units would be demanded. At 6 there would be three buyers and three sellers. Two sellers would drop out because the price was too low, two buyers would hold off because the price was too high. But at 6 there would be an equal number of buyers and sellers, and a market price would be established at that point.

**Market Price.**—This leads to the following principle: The law of market fluctuation is that prices move to a point where they equalize demand and supply. *Demand* here



*means the actual physical quantity of goods that will be taken off the market at a given price. Supply means the actual physical quantity of goods that will be offered for sale at a given price.* Price thus rests upon the relationship between these two sides of the market. If there is a small supply of a certain article in relation to the demand for it the price of that article will be high. Conversely if there is a large supply of an article in relation to the demand for it the price of that article will be low. This explains why diamonds, for which there is a very keen demand and a limited supply, command a high price. Bread commands a low price, for while it is true that the demand is great the supply of the commodity is relatively greater.

**Supply and Demand.**—However, this does not complete our teaching with regard to market price and supply and demand. From the above statement one might conclude that market price is controlled by supply and demand, and that supply and demand are controlled by market price. To avoid this “reasoning in a circle,” we must go beyond the immediate market of any given day and study its operations through a period of time. In the first place let us examine the actual *supply* of goods that comes on the market for sale. This establishes the market price and results in the price being fixed under the conditions set forth above. If, as a result, the price established is high, it may for the moment have one of two opposite effects on potential supplies not actually on the market, but capable of being brought there. If the high price of the moment seems temporary, increased supplies may be hurried to the market to take advantage of this opportunity. This increased supply may cause the price to drop quickly. On the other hand, hoping for a higher price, sellers may



actually withhold their supplies, decreasing the flow to the market and causing the price to continue rising. This may continue until the price reaches a point where holders of potential supply believe that it has reached its highest point. They will then bring their supplies to the market in an endeavour to take advantage of this higher price. In the same way a fall in price may actually lead to a decreased *demand*, buyers waiting for the price to fall to an even lower level before purchasing. These are immediately possible results of changes in market price.

Before coming to a final conclusion, let us consider the conditions under which a commodity is *produced*. If prices are higher than usual and the demand is likely to continue, the result will be increased production. Other producers will see the possibility of profitably catering to this demand and the supply of this commodity will increase. After preliminary fluctuations, the price will finally settle at a point where the conditions of production or supply and the conditions of general desire combined with the power to purchase make the volume of goods supplied and the volume of goods demanded *equal*. Market price will then remain comparatively stable until the underlying conditions of production or of demand are disturbed.

While all commodities obey this general law of supply and demand, each commodity has its own peculiarities. The demand for certain commodities will react sharply to a change in price. A slight increase in the price of certain luxuries may lead to a greatly diminished volume being taken off the market. Conversely, a slight fall in the price of a commodity may lead to a large increase in the volume of sales. Where this is true of a commodity the demand is said to be *elastic*; it expands or contracts markedly in



response to a change in price. Similarly, certain goods have an elastic supply. In other instances the demand or the supply may be *inelastic*, that is, when a change in price occurs there is no marked variation either in the volume offered or in the volume demanded.

Goods are often produced under conditions of *joint supply*. The production of cattle yields a supply of meat and also a supply of leather. Similarly, a demand for certain goods implies a demand for other goods. The purchase of an automobile creates a demand for gasoline, repair stations, and skilled mechanics. Many of the most puzzling fluctuations of price can be traced to situations created by the production of goods under conditions of joint supply, or the sale of goods under conditions of *joint demand*.

Another aspect of supply and demand which influences market price is the case of a demand for a commodity by different groups of buyers. A raw material, such as pig iron, enters into the manufacture of a great variety of articles. The demand is not a single demand for one use, but a *composite demand* made up of many separate demands for separate uses. Similarly when the supply of an article comes from several different sources it is said to be a *composite supply*. Soap, which is manufactured from animal fats or vegetable oils, the sources of which are absolutely distinct, is an example of composite supply.

The possibility of employing *substitutes* limits the range of fluctuation in market price. If a convenient substitute for an article exists, something "just as good", it is obvious that if the price of the original article is raised to any marked degree, customers will purchase the substitute. This will at once lessen the demand for the original article and increase the demand for the substitute.



The study of the market for a given commodity involves a wide knowledge of the extent of these various modifying influences on the article in question. It requires full and exact knowledge of the conditions of production and the nature of the demand for the commodity. Only in this way by sound practical judgment is the business man able to conduct his enterprise successfully. The market forms the centre of our economic life and lays the sternest demands upon skill and intelligence. In all advanced nations the presence of high marketing skill in the trading class is a distinguishing feature.

Markets do not operate in a vacuum but are subject to various influences growing out of events and the general political and economic policies of the state. The maintenance of a high protective tariff, for instance, interposes an obstacle to the free exchange of goods with foreign countries. Moreover, economic forces work slowly. There are conditions that make adjustment to market price difficult. Thus farmers devoted to the production of live stock may find an over-supply placed upon the market and the price fall to an unremunerative level. But they cannot make adjustments to meet low prices immediately. They must sell the animals that are ready for the market at what they will bring. In addition they will have other animals coming on that will continue the supply for some time. It is only by degrees that stockmen can reduce the volume of offerings and thereby influence prices. Other examples might be mentioned. An over-supply of buildings can only be corrected by ceasing construction and breaking up old buildings as they fall into disrepair. On account of the slowness with which the laws of supply and demand frequently operate it is often thought that they can be defeated or disregarded, but inevitably they assert their influence as time goes by.



## CHAPTER X

### MONEY

**Barter.**—When two people exchange one commodity for another, such as, let us say, a pair of shoes for a jacket, their doing so is what is known as *barter*. It is a method of exchange still in use among primitive people. The inconveniences, however, of carrying on exchange in this way are very great, as it must frequently happen that the individual who has shoes to exchange, and who wants a jacket, may have considerable difficulty in finding another person who desires shoes and who at the same time is able to offer a jacket in exchange. Barter, to be successful, requires this double coincidence—the man with shoes who wants a jacket must find the man possessing a jacket for exchange who wants shoes. While the meeting, from time to time, of two such people might occur, clearly, it would be more in the nature of good luck than an event that could be depended upon regularly and with confidence by either party. This uncertainty is the great objection to barter as a regular method of exchange.

Barter presents other difficulties. An individual might possess a commodity of considerable value which he wishes to exchange for a number of different commodities of less value, and held by different people. Thus, if a farmer has a milch cow and he desires to exchange it for shoes, a shirt, a knife, or other articles, he cannot divide his animal and barter it in parts with the owners of these



other commodities. He is quite unable to adjust the value of his commodity to the values of those commodities he wishes to acquire separately. This is another grave objection to the practice of exchange by barter.

These difficulties in a system of barter are an effective bar to any wide development of it as a method of exchanging goods held by different people. Consequently, where a society has not progressed beyond barter in its exchanging organization, the members composing it have to produce for themselves most of the commodities which they desire. The obstacles are too great for them to depend upon producing and exchanging a surplus stock of one kind of goods with a view to procuring other goods. Producing a variety of goods for their own consumption, these people find it impossible to take advantage of the division of labour in producing goods or to have at their command the wide variety of products that may be procured under a more convenient and flexible method of exchange. Barter means a primitive mode of life.

**Money.**—The more convenient method of exchange that has developed employs *money as an intermediary*. The individual sells his commodity for money and uses the money to purchase the goods he requires. In this way the difficulties involved in barter disappear. No double coincidence need be found to effect a successful exchange. While less direct, the process is much more convenient. Two transactions, in each of which money is used by one party to the exchange, achieve the desired result. The producer of shoes sells shoes for money to the person possessing money who wants shoes. With the money obtained the seller is then free to purchase from other producers whatever goods he desires, since all are willing to accept money in payment for them. He is thus able to obtain the goods he wants from people



who do not desire his shoes. The difficulties of a double coincidence disappear. The distinguishing characteristic of money as a commodity is just this—money is freely acceptable in exchange for all other kinds of goods. It is thus able to act as an intermediary or medium of exchange. Further, by the division of money into convenient units, it is possible to adjust to a nicety the exact relationship between the value of money and the value of the other goods. Change can be made to the exact cent.

Money expresses the value of things in prices. It acts as a measure of value. By stating the rate at which articles can be exchanged for units of money, that is by stating their price, it is easy to compare the relative values of diverse goods. Their exchange value can be brought to a common denominator. This enables the business man, carrying many kinds of goods, to state in a simple compact way the value of his whole stock. Similarly, the farmer can estimate the value of his farm, his stock, and his equipment in terms of money. The ability to find a simple descriptive expression which will state values is a great convenience. It makes possible the precise calculation of profit and loss which accompanies book-keeping. It simplifies comparison and facilitates the making of wage contracts. In a thousand ways, as a measure of value, money gives ease and facility to economic calculations.

Money acts as a standard of deferred payments. When a loan is made for a period of time it is desirable to agree upon the commodity with which it will be repaid. Money is the usual commodity stipulated. Moreover, if no specific agreement is made as to how the debt is to be discharged, practically all countries provide by law that certain forms of money may legally be tendered to extinguish the debt. Hence these forms of money are said



to be *legal tender*. That is, they can be legally tendered to extinguish a debt. As a standard of deferred payments money enters into many forms of contracts involving payments at a future date. To serve as a standard of deferred payments money should possess *stability of value*. A monetary unit whose value changed violently from year to year would be a very imperfect standard. In devising a monetary system this fact must be taken into consideration. Finally, money may be used as a store of value for future use. "Money's a matter of functions four, a medium, a measure, a standard, a store."

These are the essential services that money renders to society. And as we have shown the development of a monetary system is essential to the growth and expansion of markets, the division of labour, and specialized large-scale production. These are important features of industrial society, and are all indirectly associated with the use of money.

**The Use of Gold or Silver as Money.**—At various times in the history of the world different commodities have been used as money. Among those selected have been cattle, tobacco, skins, wheat, iron, copper, silver and gold.<sup>1</sup> The endeavour has always been to choose the available commodity best suited for the purpose, though often the best commodity gradually became recognized as money without deliberate selection at first. As the result of experience, most nations to-day make use of gold and silver in their monetary systems. These metals possess several distinct advantages, and have proven their superiority over other commodities.

Gold and silver are generally acceptable to all peoples, irrespective of race or nation. They are universally valued

<sup>1</sup>Within memory of people living to-day fish was used to make all payments on the Gaspé Coast in the Gulf of St. Lawrence.



for decoration and ornament. While the government of any one nation might pass a law requiring its people to accept a certain commodity as money, the nation's authority does not extend beyond its own boundaries; it could not compel acceptance of this commodity by foreign states. It is necessary, therefore, for a nation, in settling balances with foreign nations, to have a commodity the latter will accept as a means of payment. Gold and silver satisfy this condition, and their use facilitates exchanges between foreign nations.

**Qualities of Gold and Silver.**—The durable quality of these metals has led to the accumulation of a large supply. The world's stock of gold at the end of 1930 was estimated at probably \$11,000,000,000. This immense quantity means that a very large addition to the supply must be made before the value of gold changes. It gives the value of gold *stability*. Changes in value do take place, but as a rule occur gradually, and therefore do not affect greatly the course of business life. The high value of a comparatively small quantity of gold and silver facilitates their transportation. The relatively low value of such a metal as iron makes it an unsuitable commodity to be used as money. A penny of iron would weigh about a pound. Gold and silver can readily be made into appropriate units which are easily recognizable, are of the same weight and quality, and wear well. When these coins become worn and unrecognizable, they can be returned to the melting pot and recoinage. The qualities of gold and silver which make them suitable as money may be summed up in seven words: 1, *acceptability*; 2, *portability*; 3, *cognizability*; 4, *divisibility*; 5, *durability*; 6, *homogeneity*; and 7, *recoinage*. Of the two metals gold is more commonly used. Silver used to be generally employed,



but, as increasing supplies were discovered and mined, silver fell in value and many nations adopted the gold standard. This caused silver to decline in value still further. China is now the only great nation using silver as the basis of its monetary system. Silver is commonly used, however, as a *supplementary metal*.

**Monetary Systems.**—Monetary systems show considerable diversity which is accounted for partly by differences in views about money and partly by the economic evolution of each country. The legislation establishing a monetary system names and defines the unit of money which is legal tender, determines the concrete forms that currency assumes and specifies the conditions which govern its issue and use. A monetary system is said to have a gold standard where (1), the basic monetary unit is composed of gold of a given weight and fineness, into which (2), all kinds of currency can ultimately be converted and (3), converted at a fixed rate; and (4) where gold and gold coins are freely convertible into each other; and (5), where they can be exported without restriction.

Originally most gold standard systems provided for the coinage of the basic unit or multiples of the same. Thus, before 1914 the English gold sovereign was the standard gold coin of the United Kingdom and passed from hand to hand freely in circulation. In Canada the gold dollar was not coined on account of its small size but provision was made for the coinage of larger gold coins. Gold is not suitable for transactions involving the payment of small sums of money, and less valuable metals are used to provide a subsidiary currency for this purpose. These coins are known as token coins since their value as money depends upon the willingness of the government to redeem them in standard money. Token coins have a limited right as legal



tender for the payment of debts. Canadian silver money may be tendered in payment of a debt up to \$10; nickel to \$5, and bronze up to 25 cents.

Owing to its high value countries using gold as standard money customarily supplement their gold coinage with a paper currency. It must be remembered that many countries do not themselves produce gold in any quantity but have to obtain it by trading other goods in exchange for it. There is, therefore, every incentive to use gold for money in the most efficient and economical way possible. One method is to use it as a reserve fund and to issue as claims upon it a paper currency which is legal tender. Under this system these paper notes are redeemed in gold coin when the holder presents them at designated offices for redemption. Some governments go farther and eliminate the use of gold for domestic circulation by providing for redemption of the currency notes only when presented in large amounts, and by making the exchange not in coin but in gold bars certified as to weight and fineness. By this method the advantage of making gold available for settling foreign claims is retained but its place in domestic circulation is taken by other forms of currency which serve equally well.

Before 1914 the almost universal use of gold standard monetary systems was of great advantage in conducting foreign trade between nations. Prices were relatively stable. The value of one country's money could be easily computed in terms of another by comparison as to the amount of gold employed in the standard unit, allowance being made for the cost of moving gold from the one country to the other. Gold moved freely between countries to settle balances, and by an increase in the gold supply where gold was relatively dear, and a decrease in supply where



gold was relatively cheap, kept prices on the same general level. It must be remembered that when the value of money falls commodity prices rise, and when the value of money rises commodity prices fall.

The gold standard never really recovered from the effects of the first world war followed by the great depression of the early nineteen-thirties. With the advent of the second world war strict monetary controls were established which to a large degree are likely to be continued.

**Canadian Monetary System.**—Canada makes the dollar the standard unit of money. When Canada was a French colony a French system of currency was in use. Later, under the British, an effort was made to establish the system of pounds, shillings and pence. This system was abandoned here, as it was in the United States, in favour of a coin of Spanish origin, the dollar, which at the time was in circulation in this country. The past glories and power of Spain in America have thus left their trace on our monetary system. The Canadian currency act provides that the denominations of money in Canada shall be dollars, cents and mills—the cent being one-hundredth part of a dollar, and the mill one-tenth part of a cent. The mill is not coined but is frequently used in calculations.

Before 1914 the basis of the Canadian monetary system was a gold dollar but while gold coins were obtainable on demand they did not commonly circulate. Their place was taken by paper currency of two kinds: (1), Dominion notes issued by the Dominion Government, which were legal tender, and were redeemable in gold at offices established in each province of Canada by the federal Department of Finance; (2), Bank notes, which were not legal tender, issued by the chartered banks of Canada and redeemable at their offices in legal tender. Dominion notes were issued



in various denominations of which the one dollar and two dollar bills circulated commonly in the hands of the public. Bank notes of five dollars and multiples of five were the other common media of exchange. The subsidiary currency was composed of silver, nickel and bronze.

In 1914 the redemption of paper currency in gold was suspended and only resumed in 1926. Subsequently, in 1931, the gold standard was again suspended and was not resumed. Meanwhile, as a result of a comprehensive investigation conducted by a Royal Commission into Canada's banking and currency system, legislation was enacted in 1934 which recast its organization.

The control of paper currency was concentrated in a new institution, the Bank of Canada<sup>1</sup>. Dominion notes were replaced by Bank of Canada notes, while provision was made for the bank notes issued by the chartered banks for circulation in Canada to be gradually reduced in volume until they were not in excess of 25 per cent of the banks' paid-up capital. By a further change in the Bank in 1944 the chartered banks are required to retire all their notes outstanding in Canada by January 1, 1950. This will leave the notes of the Bank of Canada as the sole domestic paper currency. Bank of Canada notes are legal tender for all purposes. Subsidiary coins retain their former status.

No limitation is placed upon the amount of notes the Bank of Canada may issue except the indirect one which requires the bank to maintain a reserve consisting of gold coin and bullion equal to an amount not less than twenty-five per cent. of its outstanding notes and deposit liabilities. In 1940 an Order-in-Council authorized the transfer

<sup>1</sup>See Chapter XIII.



of the Bank's gold holdings to the Foreign Exchange Control Board and temporarily suspended the requirements for a minimum gold reserve.

By the statute, normally the bank was required to sell gold to any person who made demand therefor at the head office at Ottawa and tendered the purchase price in legal tender, i.e., in Bank of Canada notes. Sale, however, would only take place in the form of gold bars containing approximately 400 ounces of fine gold. Computed on the basis of 23.2 grains of pure gold to the dollar, the legal requirement at present, 400 ounces would represent a sum exceeding \$8,000. It was provided, moreover, that the Governor-in-Council from time to time and for such period as might be deemed advisable might suspend the purchase of Bank of Canada notes for gold. The war ended free exchange. In September, 1939, the Foreign Exchange Control Board was created. This Board assumed complete control of international exchange transactions. Citizens of Canada who desired to obtain gold or foreign exchange must apply to the Board and only have their applications honoured when the Board approves. The purpose of this control originally was to make available to the largest degree possible, Canadian financial resources for the conduct of the war, to maintain the international value of the Canadian dollar, and generally to assist in stabilizing economic conditions in Canada.



## CHAPTER XI

### CREDIT AND BANKING

**Credit.**—The use of credit is widespread in the modern world of business. Credit means exchanging valuable property for a promise that an equivalent will be forthcoming at a future date. The transaction implies confidence in the ability and in the intention of a person to fulfil his obligation. A simple method of extending credit occurs when a merchant sells goods to a customer on time. The merchant accepts the customer's promise to pay in the future for the goods he secures at the time. This type of credit is quite common in all branches of trade; manufacturers sell on time to wholesale merchants, wholesalers to retailers; machine companies sell their machines on monthly, quarterly, or yearly payments. The obligation to pay may be recorded merely as a book debt or account against the customer. It may be arranged, however, more explicitly by the customer giving a promissory note, that is, a written promise by the debtor to pay the agreed amount to the creditor on a definite date. Where credit is given to a customer in the form of goods, it is known as *trade credit* because it is incidental to the main business of selling commodities.

A further stage in the development of credit is reached when institutions arise which confine themselves to dealing in *money, loans, and credits*. These institutions are of various kinds, but the common types are commercial banks, mortgage companies, trust and loan companies, bond



and brokerage houses. These institutions differ in the forms of credit or security with which they are concerned, or by the nature of the services they render. They are each a part, however, of the modern system of credit.

**Commercial Banks.**—Of these institutions the most important are the commercial banks. They are called commercial banks because of their close relationship to the processes of trade and commerce. The business of the commercial banks is to accept deposits and to make loans for short periods of time. A bank is established like any other business venture by shareholders supplying a certain amount of capital which is used to conduct the business. Banks also accept deposits from people having idle funds who wish to put them in a place of safe keeping until they have need of them. Upon these deposits the banks pay a small rate of interest and agree to return them to the depositors upon their demand. Banks also lend purchasing power to customers who are believed to be able to employ it usefully and to repay it upon an agreed date.

**Bank Credit.**—Here the part that credit plays in the business of banking comes into prominence. As a matter of fact, banks do not lend money to their customers, but *a substitute, the bank's own credit.* When a customer approaches a bank for a loan, the banker satisfies himself that the customer will be able to repay the amount asked for in a short time, usually in one to three months. Long familiarity with business men and the condition of business makes the banker an expert in the task of estimating the probability of repayment. The rate of interest is agreed upon, the customer signs a note in favour of the bank for the amount, the period over which the loan will extend



is fixed and the customer then obtains his advance either in the form of the bank's notes or his account is credited with the amount of the advance. Upon this deposit he may draw cheques. That is, the customer pledges his credit and in return obtains the use of the credit of the bank which is superior to his own credit, since the quality of his own may not be so well known. He can use bank credit as a means of payment, because other people will accept either cheques on the bank or bank notes in lieu of *legal tender*. The banks agree to redeem their notes at any time, or to honour cheques properly drawn against deposits held by the bank. One can demand this redemption in legal tender. Elaborate precautions are taken by the banks to have readily available a reserve of money sufficiently large to meet these obligations. In addition, in most countries where banks are allowed to issue notes, the government insists upon special safeguards for the holder of the banks' notes. He has, therefore, every assurance that his note can be redeemed in legal tender. Under these conditions bank notes commonly circulate as freely as the currency issued by the state.

**Cheques.**—Cheques, too, play a tremendous part in our system of exchange. They have three advantages as a means of payment: (1) If large sums are to be paid, they render unnecessary the carrying of a large amount of money with its attendant danger of loss or theft. (2) When a cheque is cashed at the bank, it becomes a receipt to the issuer that the sum in question has been paid. (3) A cheque is issued for an exact amount and causes no difficulties in making change. The limitation of the cheque is that the acceptor must be convinced of the integrity of the issuer. A cheque is of no value unless the person who issues it has sufficient funds on deposit in the bank to enable it to



be cashed. The general public is not in a position to judge whether or not this is the case. Therefore cheques do not circulate from hand to hand as do bank notes; they are commonly used for one certain payment and then are returned to the bank to be cashed, or are deposited by the person in whose favour they are drawn.

The bank in its relationship to its customer is thus a *dealer in credits*. It buys the inferior, because less widely known credit obligation of the customer and sells him its own well-authenticated and widely-known forms of credit. For this service the bank receives a payment in the form of *interest*.

As a buyer and seller of credit it would seem that a bank might indefinitely expand its business. When a bank sells its credit, there occurs an outward flow of its funds. Those who have obtained a loan naturally proceed to use it by withdrawing bank notes or writing cheques upon the bank. These forms of bank credit will return quickly to the bank for redemption in legal tender and an *outward* flow of funds results. But since the bank has purchased the credit of its customers, a constant flow *inward* of funds from debtors of the bank repaying their loans is assured. Day by day this outward and inward flow of funds might balance, or the inward flow might be slightly larger on account of the profits of the bank's transactions. Under such conditions no large sum of cash on hand would appear to be required. Experience, however, demonstrates that the volume of loans maturing day by day does not necessarily coincide with the volume of demands upon the ready funds of the bank. Moreover, customers are not always able to meet their notes on the day they have agreed. The result is that on any given date, there may be more demands presented for re-



demption than there are sums of money coming in. A cash *reserve* is necessary for such a contingency. Every practical banker knows this, and it is one of his chief tasks to watch this reserve and to be certain that it is ample to meet current demand liabilities.

**Reserve.**—The reserve is established from the capital put into the bank by the shareholders at its inception and is augmented by the deposits which are not created by loan, but come from those who are using the bank as a place of safekeeping for their savings. The ability to use savings deposits as part of the reserves upon which it can base an extension of credit explains why it is possible for a bank to accept funds for safekeeping and at the same time pay interest upon them. Money in the savings department of a bank is not idle, but enables the bank to expand its business. The larger the savings deposits become, the larger the amounts of its own credit the bank may loan. This accounts for the keen competition of the banks to secure savings accounts.

The employment of cheques and bank notes as a medium of exchange involves the redemption in legal tender, upon presentation of these forms of credit, by the banks upon which they are a claim. Individuals do not often insist upon this right, but the banks, which are competing against each other, and must be continually replenishing their reserve to meet whatever redemptions there are, require a daily settlement of all claims they have upon rival banks. It is obvious, however, that each bank will not only have claims to present against other banks, but will face similar claims from these banks. If each claim were settled for its total amount, large sums of money would be sent from one bank to another. A simpler method is to settle by exchanging at a central point the



total of cheques and notes they hold against each other, and pay over the balance to the bank which has the larger claim. That is accomplished through the clearing house system.

**Clearing House System.**—In the course of a day's business each bank receives, through the deposits of its customers, its own notes, the notes of other banks, cheques drawn upon other banks, legal tender notes, and cheques drawn upon itself. The latter cause no difficulty; the bank simply charges the amount of the cheque to the account of the customer who has drawn it and credits the depositor's account with a similar amount. Legal tender notes are added to its reserve. But the claims against other banks are sorted out and placed in separate packages and representatives of all banks meet every day and exchange the claims against each other. These are cancelled against each other as far as possible and the banks that have balances due to them receive payment either in legal tender or in an order upon one of the larger financial centres where it can be converted into legal tender. The clearing system of settling by balances effects an enormous saving in time and in the use of legal tender.

**Short- and Medium-Term Credit.**—The commercial banks particularly apply themselves to the extension of short-term credit. They assist in the financing of production and marketing. In practice, they prefer loans that do not extend beyond three months. These loans are particularly suited to the needs of manufacturing, trade and commerce, and to a lesser degree the requirements of the farmer, where the longer cycle of production and marketing makes a loan of from six months to a year desirable.

Between the chartered banks with their short-term credit facilities and the institutions able to lend capital for a long period there existed a gap in Canada in credit



facilities which especially affected small industries and farmers requiring loans for a medium term for purposes of development. To remedy this situation the Federal Government in 1944 created the Industrial Development Bank to take care particularly of the needs of small industries. As a further step legislation was enacted by which farmers may now obtain loans for improvement purposes from the chartered banks which may run for ten years. These loans are guaranteed by the Federal Government up to 10 per cent. of their amount which may not exceed \$3,500.

**Long-Term Credit.**—There are many institutions which bring together the owner of funds who is seeking investment and the individual who wishes to borrow money for the purchase of lands, factories, machinery, railroads, or other forms of *fixed* capital. A loan to such a borrower is generally for a long period of time. Institutions which specialize in this type of business are long-term credit institutions in contrast with the banks which offer short-term credit facilities. One well-known type of long-term credit institution is the *mortgage company*, which lends money for fairly long periods with the security of a mortgage on the borrower's property.

**Mortgages.**—A mortgage provides that if the annual interest on the principal sum borrowed is not paid on the date agreed upon or if the principal itself is not repaid on its due date, the holder of the mortgage may foreclose and sell the property to satisfy his claim. Money lent on this security is usually a safe investment. Mortgage companies increase their funds for doing business, beyond the capital the shareholders contribute, by borrowing. They issue debenture bonds with their assets as security. Mortgages obtained through previous loans plus their own capital investment constitute the greater part of these assets. These



bonds appeal to certain investors who are prepared to accept a lower rate of interest from their loan because of the relative safety of the investment. Funds thus obtained are lent at a higher rate of interest to landowners on mortgage security. In 1941, 265,282 farms in Canada reported indebtedness on mortgages and agreements of sale amounting to \$629,288,900. In western Canada beginning in 1930 low prices for farm products and short crops caused by drought produced a serious situation for some years. Farm income was estimated to have fallen  $67\frac{1}{2}$  per cent. between 1928 and 1932. To relieve the excessive burden of debt upon many farmers federal legislation was passed in 1934 providing a method by which liabilities might be cut down to a basis where payment would be feasible. Prosperous farm conditions during the war years enabled farmers to reduce substantially their mortgage indebtedness and improve their position.

**Bonds.**—Many financial houses act simply as buyers and sellers between the borrower and lender. The large bond houses of Montreal and Toronto are of this type. When a railroad, an industrial company, a municipality, or a province wishes to borrow a sum of money for a term of years it issues *bonds*. These bonds oblige the issuer to pay a certain rate of interest and to redeem the bonds within a certain time. Rather than appeal directly to investors to purchase the bonds and thereby lend them the money they require, the borrower commonly disposes of the whole issue to a bond merchant who, in turn, disposes of the bonds in varying quantities to his customers who have funds available for investment.

Canada has followed British tradition in keeping the business of commercial banking, or that of supplying short-term credit, distinct from the business of supplying long-term credit, or credit for capital investments. In



Germany the banks deal freely in both forms of credit. In the United States there are institutions which confine their activities strictly to either long-term or short-term credit. In recent years, however, a type of mixed institution has developed whose activities are similar to those of the German bank. This is the *Trust and Guaranty Company*.

**Value of Flexible Credit System.**—A convenient and flexible credit system has great value. It lightens the burden of making exchanges which falls upon a monetary system, thereby economizing in the use of gold. It increases the efficiency of capital by enabling a business to be conducted with smaller financial resources than would be necessary were it unable to obtain loans. Small sums of money which might otherwise remain idle are assembled and lent in bulk sums to those capable of giving funds employment. Finally, an efficient credit system gives a greater mobility to the direction and control of capital, and enables society to employ speedily its resources in the lines of production which yield to it the greatest satisfaction.

**Control of Credit.**—While the advantages of credit are readily observable certain dangers in its use are not so obvious. Variations in the volume of credit are an important factor in influencing the pace of economic activity. It is possible to have too much credit as well as too little. The searching examination given to the whole economic system following the crash of 1929 with the ensuing depression led investigators to fix upon excessive credit as the principal cause of the unhealthy over-stimulation of business that existed prior to 1929. As a result the regulation of credit in the public interest has come to be generally recognized as one of the functions of the state. In this country the Bank of Canada is charged with this duty.



## CHAPTER XII

### THE CHARTERED BANKS

**Organization.**—The history of Canadian banking began with the establishment of the Bank of Montreal in 1817. Between that date and 1867 banks were organized under the authority of the various colonial governments in Canada or by royal charter. In 1867 the Act of Confederation placed banking under the sole control of the federal parliament. As a result the Canadian system of banking does not differ in each province but is uniform for the whole Dominion. The first general bank act was passed in 1871 and the statute has been revised every ten years since with two exceptions: in 1911 a federal election caused postponement until 1913; in 1933 revision was held over to enable a Royal Commission on Banking and Currency to examine and report in what respects the banking and currency system of Canada might be advantageously modified.

Bank charters are granted only until the date of the next decennial revision so that parliament, in reconsidering banking legislation, is not hampered by existing charters. After revision the charters of the banks are extended for a further ten years. Monetary and banking legislation in 1934 went much farther than revision of the Bank Act by establishing under separate statute the Bank of Canada.

In 1944 the Bank Act again underwent revision and other measures designed to extend credit facilities were enacted.<sup>1</sup>

<sup>1</sup>See p. 101.



**Act of Incorporation.**—To establish a bank in Canada application must be made to parliament for a special act of incorporation. This application, in the form of a bill, is submitted to a standing banking and commerce committee in the House of Commons. If this application is approved by the committee, the bill is passed by parliament and the bank is incorporated. It cannot begin business, however, until the incorporators of the new bank fulfil certain conditions of the Bank Act. These conditions must be met before the new bank is given the certificate which formally permits it to open. If these conditions are not fulfilled within one year, the charter lapses.

**Minimum Requirements.**—The minimum requirements are as follows: There must be secured share subscriptions to the capital of the bank of at least \$500,000, of which sum one-half must be paid-up in cash. Then \$250,000 must be deposited with the Minister of Finance for Canada. Formal organization of the institution can now proceed. A meeting of the subscribers is called, the date of the annual meeting of the bank is decided upon and a board of at least five directors is elected, of whom a majority must be British subjects. These directors hold office until the next annual meeting of the bank. The directors then apply to the Treasury Board for a certificate permitting the bank to begin business. This application contains all the details of the incorporation and organization of the bank, and gives particular information concerning sums of money which have been spent in the course of these preliminary proceedings. If this information is satisfactory, the Treasury Board issues a certificate permitting the bank to engage in business. The \$250,000, deposited with the Minister of Finance as an evidence of good faith, is returned, less the sum of \$5,000 which is re-



tained and is added to the *Circulation Redemption Fund* held by the Minister.

These precautions throw considerable light upon the nature of the Canadian system of banking, which is a system of *controlled banking* in contrast with the free banking system of the United States. There a bank may be established and begin operations as freely as any other business corporation. But in Canada, as we have seen, a bank must be chartered by a special act of parliament and this application for a charter may be refused, and on certain occasions has not been granted. Even after incorporation has been obtained, a bank may be unable at the outset to raise the large capital required. Moreover, if the Treasury Board is not absolutely satisfied with conditions, it may refuse to issue the certificate entitling the bank to engage in business. Further, if organization is not completed within one year, the charter is lost.

**Capital Required.**—A large capital is required to start a bank in Canada. Under the free banking system of the United States the minimum capitalization for a state bank is \$10,000. The minimum capital required for the organization of a national bank in places with a population of three thousand or under is \$25,000. In Canada the minimum capital required for the establishment of a chartered bank is \$500,000. The natural effect of the Canadian law is to limit the number of institutions to a few with large capital. At present (1945) there are nine banks in Canada; the paid-up capital of the smallest bank in this country is \$1,500,000, of the largest \$36,000,000. Four institutions have a paid-up capital of over \$10,000,000 each. The Bank Act limits the amount of dividend the Canadian banks may pay to 8 per cent. until they have supplemented their working capital by a *rest*



*fund* drawn either from profits or obtained by direct contributions of the shareholders. This rest fund must total at least thirty per cent. of the paid-up capital of the bank. In 1945 paid-up capital of the Canadian banks amounted to \$145,500,000 and the rest or reserve fund to \$136,750,000. As a group the chartered banks wield an immense influence in the economic life of Canada.

**Branch Bank System.**—Canadian banking represents a high development of the branch banking system. This, too, is in contrast with the United States, where the predominant type of bank is the single independent unit. In Canada each institution with one exception has a widespread system of branches over which the head office exercises rigid supervision and control. There are 2,589 branches<sup>1</sup> in the Canadian system. Of these 2,451 are located in Canada, 88 in the West Indies, South and Central America, 29 in Newfoundland, 11 in the United States and 7 in England. The largest number of branches belonging to an individual institution is 615 while the smallest bank in the system has two branches.

**Control of Policy.**—The head office exercises control over the policy of its branches through a general manager who acts in conjunction with and under the control of the Board of Directors. The branches of a bank, in a smaller territory such as a province, are under the supervision of a superintendent who is responsible to the general manager at head office. The branch managers at local points are under the direct supervision of the superintendent. In their own fields, the local managers are given considerable authority in making small loans. Beyond \$5,000, however, the application has to be submitted to their superintendent. His authority is wider and he can authorize loans

<sup>1</sup>Dec. 31, 1943,



up to about \$25,000. Before a larger loan can be made, authorization must be obtained from head office. In addition to exercising control over the lending policy of the branches in this manner, the head office controls the general business of the branches by an elaborate system of *inspection and audit*. Each branch office is visited regularly by officials from the superintendent's office or the head office who inspect the business of the branch and audit its books.

**Powers of Banks.**—The Canadian banks have the usual powers of short-term credit institutions. They are authorized to carry on business as dealers in gold and silver coin and bullion; to deal in discount, to lend money, and to make advances on bills of exchange, promissory notes and other negotiable securities. The right to issue notes and to open branches, which they possess, are privileges not always granted to banking institutions. Canadian banks are *forbidden to engage in any trade or business, to deal in the shares of any bank stock or to lend money on them, or to lend money on the security of real estate mortgages*. The refusal to permit banks to lend money upon real estate mortgages is due to a recognition of the fact that a bank might easily get its funds so tied up in loans upon land that in time of stress it could not realize upon its securities. The banks are permitted, however, to accept mortgages on land to *protect a loan previously made*.

The recent trend of legislation has been to widen the powers of the banks to enable them to make loans upon the security of certain forms of real property to aid farmers, stockraisers, fishermen, shipbuilders and lumbermen in the conduct of their business.

**Rate of Interest.**—The highest rate of interest permitted



to be charged on ordinary loans under the Bank Act is six per cent. A heavy penalty attaches for violation of this rule. It is provided, however, that where the interest amounts to less than one dollar the bank may charge this sum except when the loan is not in excess of twenty-five dollars and the interest is less than fifty cents, when the maximum charge shall not exceed fifty cents. On small loans not in excess of \$500 where the only security given is a promissory note or a life insurance policy in favour of the bank with the loan repayable in monthly instalments, the bank may charge an effective rate of interest up to  $9\frac{3}{4}$  per cent. per annum.

**Issue of Bank Notes.**—Until the establishment of the Bank of Canada the chartered banks were allowed to issue notes equal to the amount of their paid-up capital. The law also provided methods whereby additional bank notes might be issued when the demands for currency were unusually heavy. The right to issue notes was a most cherished privilege of the banks and was justified on the grounds that it enabled them, by using their own notes for till money, to extend banking facilities to small places where the expense would not justify them doing so if they were required to hold at these points larger amounts of Dominion notes. Some merit was conceded to this contention and the curtailment of the privilege has probably contributed to the decline in the number of branches of the chartered banks in Canada. Since the establishment of the Bank of Canada in 1934 the number of branches of the chartered banks has fallen from 3,527 to 2,589.

Under the Bank Act of 1934 the chartered banks were required to reduce the issue of their notes gradually during the following ten years to an amount not in excess of 25 per cent. of their paid-up capital. The Act of 1944



requires the banks to retire all their outstanding notes by January 1, 1950. In 1934, 80 per cent. of the notes in the hands of the public in Canada were issued by the chartered banks. In 1943 the percentage had fallen to seven, their bank notes being replaced by notes issued by the Bank of Canada.

**Redeeming Bank Notes.**—The Bank Act contains elaborate provisions for *the redemption of bank notes in legal tender*. Each bank must accept its notes at par at any of its branches and must establish agencies throughout Canada for the redemption of its notes in legal tender. In addition to this we will remember that out of the \$250,000 deposited by each bank at the time of its incorporation \$5,000 has been retained by the Minister of Finance and deposited in *The Bank Circulation Redemption Fund*, to which all banks contribute 5 per cent. of their outstanding circulation. If a bank fails the redemption of its notes is the primary function of this fund. If the defunct bank has an insufficient deposit in the Circulation Redemption Fund the additional cost of redemption is borne by the other banks. In this way the notes of the defunct bank are redeemed promptly. So that they may not depreciate in value the notes of a defunct bank bear interest at 5 per cent. from the date on which the bank suspends payment until the date of redemption. If the bank cannot redeem its notes within two months the Redemption Fund is used for this purpose. As the assets of an institution which has failed become available they are employed to reimburse the Redemption Fund; for the bank notes they hold are a preferred lien upon the bank's assets. Originally these assets included a liability upon the shareholders equal to the par value of their shares but as the right of the chartered banks to issue notes has been curtailed this liability has been correspondingly reduced. When the notes



of the chartered banks are completely retired in 1950 the provisions of the Act covering their redemption will cease to have significance. Banks notes, although not legal tender, were always regarded as fiduciary currency of the highest quality. Since 1880 no holder of the notes of a defunct bank in Canada ever suffered loss.

**Cash Reserve.**—Sound banking requires that each institution should carry a reserve of cash sufficient to meet at all times all legitimate demands. This is one of the first principles of banking. The Bank Act requires each bank to hold a reserve of not less than five per cent. of its deposit liabilities within Canada. This reserve is to consist of a deposit with the Bank of Canada and of notes of the Bank of Canada held by the bank itself. For instance, on the twenty-eighth of February, 1945, total deposits in the chartered banks of Canada exceeded \$5,000,000,000. Against these claims the Banks were holding notes of the Bank of Canada for \$131,524,408 and had deposits in the Bank itself of \$397,634,451. This was in excess of the statutory minimum. Reserves additional to that required by the Act may be held in cash or in securities that may be readily turned into cash. The size of the reserve is determined on the basis of past experience. Each individual bank manager must determine the reserve his institution must maintain to ensure that it can always meet demands made upon it.

**Audit.**—Notwithstanding the strictest precautions there have been several bank failures in Canada. These have led to careful re-examinations of the system and endeavours to strengthen it where weaknesses have been revealed. Failures have been chiefly due to incompetence or fraud in the head office. This danger cannot be eliminated by the Bank Act but it has been materially lessened by the develop-



ment of various expedients. One section of the Bank Act provides for the appointment of auditors who represent the shareholders and act more or less independently of the management. The Institutes of Chartered Accountants in the various provinces furnish the Minister of Finance and the Canadian Bankers' Association with lists of members who have practised their profession in Canada for six years. From these lists the minister selects and publishes the names of accountants eligible to be appointed as auditors of a bank. At the annual meeting of the bank the shareholders appoint two men thus chosen. These auditors report to the shareholders at the annual meetings of the bank and certify that the annual statements submitted by the management reveal the true position of the bank.

**Reports.**—As a further precaution all banks must send monthly and annual reports to the Minister of Finance, and should these prove in any way unsatisfactory or if he has any cause to doubt the stability of a bank the Minister can demand special reports and insist upon a thorough investigation of the bank's affairs. Heavy penalties are imposed upon bank directors or managers if they are proven guilty of submitting false statements. Canadian banking history records several cases where dishonest bank officials have been convicted and sent to the penitentiary. The collapse of the Merchants' Bank in 1922 was followed by the prosecution of the president and the general manager, but the crown failed to secure a conviction.

**Inspection.**—Finally, in 1924, an amendment to the Bank Act provided for the appointment by the Minister of Finance of an Inspector General of Banks. The duty of this official is from time to time, but not less frequently than once a year, to make or cause to be made, an examination into the affairs or business of each bank for the



purpose of satisfying himself that the provisions of the Bank Act with respect to the safety of the creditors and shareholders are being observed, and that the bank is in a sound financial condition. At the conclusion of each such examination the Inspector reports to the Minister of Finance. If the Inspector should discover a bank to be insolvent he would report to the Minister, who in turn would appoint a curator to supervise the affairs of the bank. The Inspector General and the expenses of his office are paid in the first instance out of government funds but this is recovered from the banks by an assessment based on their average total assets. This completes the safeguards that federal legislation has thrown around the operations of the chartered banks for the protection of the public.

**Advantages of the System.**—The Canadian banking system revealed its strength during the depression which began in 1929. At no time did legitimate borrowers lack accommodation or depositors suffer loss through the banks' inability to meet demands. Much of this stability is attributable to branch banking. The power to establish branches has meant large banking organizations with the power to offer wider accommodation and greater security than could be supplied by small, independent banks. Moreover, the process of transmitting or collecting funds is greatly simplified by the network of branches. Balanced banking has accelerated development of frontier communities; the banks have secured deposits in the more settled parts of eastern Canada and used these deposits as the basis of western loans. The difference between the rate of interest that clients pay in eastern and western Canada is not as great as the difference between current rates in the eastern and western state of American Union.

The establishment of branches has given banking service



to many small communities which left to their own resources would have been unable to establish local banks. This is especially true of many new communities in Western Canada. The value of the services the banks have rendered has been increased by the promptness with which they have followed settlement. In convenient banking service, Canada compares favourably with any country in the world.

The chartered banks have been subjected to certain criticisms. They are said to constitute a money trust closely associated with, and dominated by, the larger economic enterprises in Canada. It is claimed that this has handicapped the smaller businesses and less wealthy provinces.

An examination of the capital devoted to banking shows that bank shareholders represent widely scattered groups and that many hold only two or three shares. The boards of directors are generally made up of men from all parts of Canada who have been successful in other business enterprises. They are not merely bank directors, but directors of other businesses as well. This does not necessarily indicate a money trust and it is well known that the banks in Canada compete very keenly for desirable business. However, in determining what rates of interest will be charged in certain sections of the country and in some other matters, it appears that the banks usually work together.

In many small ambitious communities the complaint is made that the local branch manager of a chartered bank does not exhibit the same interest and sympathy in the advancement of the community that a local independent bank would show. This may be true, but there is another side to the question. The branch office of the chartered bank, as a rule, places at the disposal of the community



larger resources than a small local bank could command. It also extends to its clients a much greater degree of security. Where the small local bank is the rule, in periods of stress there are many failures with heavy losses to local depositors. The loss to creditors under the Canadian system has been exceptionally small.

There has also been the complaint that the chartered banks have failed to meet the requirements of short-term credit for agricultural production in Western Canada. Various amendments to the Bank Act in recent years have widened the powers of the banks<sup>1</sup> and this need has now been very largely satisfied. In obtaining a loan, however, there is no substitute to being able to offer good security as a guarantee that it will be repaid and this rule applies equally to the farmer and the businessman.

**The Lack of Control.**—Of a different nature was the demand for an institution, representing the public interest, that could deal competently with monetary and banking problems in their broader aspects. While the Minister of Finance, as administrator of the Bank Act and controller of the currency, was in touch with banking and credit conditions, there was no real control exercised over money and credit such as prevails in the United States under the Federal Reserve Board, in Great Britain through the Bank of England, and elsewhere through various types of government banks. This demand did not arise from defects in the working of the chartered banks which, within their limits, were conceded to give “admirable evidence of security, efficiency and convenience”, but from evidence that the Canadian monetary system was incomplete.

Operations under the Finance Act revealed the need of some form of credit control. The Finance Act, was origin-

<sup>1</sup>See p. 101.



ally passed to enable the government to cope with the problems created by the first world war. It gave the Minister of Finance power to make advances to the chartered banks, in the form of Dominion notes, upon the pledge of approved securities. These advances, by increasing the banks' reserves, enabled them to lend more freely. The ultimate effects of an enlarged volume of credit was to increase the demands upon the federal government to redeem Dominion notes in gold, gold being required to settle foreign balances. This was a factor in the suspension of the gold standard in 1931.

In 1933 the Dominion Government appointed a Royal Commission which examined the entire Canadian financial system and recommended a central bank. In 1934 legislation provided for the establishment of the Bank of Canada. The Bank of Canada commenced operations in 1935. Originally the Bank was privately owned the capital being raised by general subscription. Directors were elected to represent different aspects of the economic life of Canada. The Deputy Minister of Finance was also a director but without vote. In 1938 all shares owned by the public were purchased by the government and the Bank of Canada was brought completely under government control.



## CHAPTER XIII

### THE BANK OF CANADA

The Royal Commission on Banking and Currency, in recommending the establishment of a central bank in Canada, set forth the purposes for which central banks exist. They are:

- (1) To regulate credit and currency in the best interests of the nation;
- (2) To maintain the external stability of the country's currency;
- (3) To co-operate with similar institutions in other countries with a view to mitigating adverse fluctuations in economic activity;
- (4) To be a source of skilled financial advice at the disposal of the administration of the day.

In addition, the Commission expressed the view that in return for the privileges the state confers upon it the Bank should use its store of experience in the service of the community without the desire for or need of profit as a primary consideration. The Bank of Canada was established by parliament under a special statute to provide the instrument or agency through which these ends might be achieved.

**Organization and Capital Stock.**—The Bank of Canada has its head office in Ottawa and maintains agencies in each province. The Bank may also, with the approval of the Governor-in-Council, establish branches and appoint agents elsewhere than in Canada. The Bank is under the



management of a Board of Directors composed of a Governor, Deputy Governor and eleven directors. The Governor and Deputy Governor must be men of "proven financial experience" and each must devote the whole of his time to the duties of his office; they must not own shares in any other bank or financial institution. The Deputy Minister of Finance is a member of the Board *ex officio*. The Governor of the Bank, who is the Chairman of the Board, is the chief executive officer and is appointed for a term of seven years.

Directors are appointed by the Minister of Finance for a term of three years and must be selected from diversified occupations. Directors must be British subjects ordinary resident in Canada. No person is eligible who is connected with a chartered bank nor may a director of the Bank of Canada hold shares in a chartered bank. All of the provinces of Canada are represented on the Board, with two each from Ontario and Quebec.

The Act provides for an executive committee of the board consisting of the Governor, Deputy Governor and one director selected by the Board. In addition, the Deputy Minister of Finance, or in his absence a representative of the Department of Finance, is a member of the executive committee but without vote. The executive committee may deal with any matter within the competence of the board but must report to the latter at its next meeting. Upon the Governor of the Bank devolves the real responsibility for the Bank's operations, since no action or decision of the board or the executive committee is valid without his concurrence, or in his absence that of the Deputy Governor.

The capital stock of the Bank is five million dollars divided into shares of fifty dollars each. These shares are held in the name of the Minister of Finance.



**Powers of the Bank.**—The Bank is authorized to deal in coin and bullion and foreign exchange. It may buy or sell short-term securities issued by the Dominion of Canada or its provinces, by the United Kingdom, any British Dominion, the United States or France, and up to a certain limit long-term securities of Canada or its provinces and of the United Kingdom or the United States. In dealing with the chartered banks it may buy, sell or rediscount bills of exchange or promissory notes endorsed by them which do not run over ninety days, except in the case of documents arising from the production or marketing of primary products, when they may run for one hundred and eighty days. Secured loans to the chartered banks are limited to six months. This is true also of secured loans to the Dominion Government or to the government of any province. Other loans may be made to the Dominion Government but these must not exceed one-third of the estimated revenue for the fiscal year; similar loans to provincial governments are limited to one-fourth of its estimated revenue for the fiscal year. In each instance these loans must be repaid before the end of the first quarter of the fiscal year succeeding.

The Act provides for open market operations. The Bank may buy or sell in the open market from or to any person bills of exchange and securities with or without the endorsement of a chartered bank. This power is important to the Bank in connection with its responsibilities in maintaining the external value of the Canadian dollar, and also with respect to bringing forces to bear upon the volume of credit outstanding. The Bank has also the power to open accounts in a central bank of any other country and may act as the agent, depository or correspondent of such other central banks in Canada.



The Bank is limited in accepting deposits to those of the Dominion Government or the government of any province or from any chartered bank or incorporated savings bank. Deposits do not bear interest. The Bank is essentially a bankers' and governments' bank and does not ordinarily come into direct contact with the general public.

The Bank is required to act as fiscal agent for the Government of Canada without charge; by agreement it may also act as banker or fiscal agent for the government of any province. The Bank may also be required to manage the public debt of Canada. The Bank must cash all government cheques without charge and also without charge accept for deposit cheques drawn in favour of the government.

**Reserves.**—The powers of the Bank in connection with the issue of notes to be used as currency have already been set forth in the chapter on money. The Bank is required to maintain a reserve, consisting of gold coin and bullion, of twenty-five per cent. of its outstanding notes and deposit liabilities. This is its minimum gold reserve, since the Act states that it "may in addition" include in its reserve silver bullion, balances with the Bank of England, the Federal Reserve Bank of New York, the Bank for International Settlement and with any central bank where the country is actually on the gold standard. It may also consider as part of its reserve treasury bills of the United Kingdom and the United States, and short-term bills of exchange payable in gold standard countries. The gold reserve requirement may be suspended by the government on the written request of the board of directors of the Bank.

On the day the Bank commenced business the Minister of Finance transferred to it the gold and silver held for



the redemption of Dominion notes, and securities of the Dominion of Canada to the amount of the Dominion notes outstanding except Dominion notes issued as advances to the chartered banks under the Finance Act. The Bank became responsible for the redemption of Dominion notes. At the same time the chartered banks were required to repay advances under the Finance Act and to surrender all gold coin or bullion held or owned by them in Canada. The value of the gold transferred was credited to the banks on the basis of 23.2 grains to the dollar except where the gold held was against liabilities outside Canada. Since the market value of gold in terms of Canadian paper dollars at the date of transfer was much higher than this basis, profits accrued from this operation. These profits, however, were turned in by the Bank to the Consolidated Revenue Fund of Canada.

**Profits.**—The Bank is authorized to pay dividends of four and one-half per cent. per annum on its capital stock. The Bank is required to establish a rest fund, and profits in excess of dividend payments are divided between this fund and the Consolidated Revenue Fund of Canada. If the rest fund becomes not less than twice the paid-up capital of the Bank all surplus profits shall then be paid over to the Consolidated Revenue Fund. This requirement is designed to meet the suggestion of the Royal Commission on Banking and Currency that profits should not be a ruling motive in the operation of the Bank.

At the end of 1944 the assets of the Bank stood at \$1,687,386,096.91. The profits for the year of 1944 were \$20,312,659.63. Of this amount \$2,008,765.97 were transferred to the Rest Fund of the Bank and \$20,087,659.68



to the Receiver General for credit to the Consolidated Revenue Fund of Canada.

**Methods of Operation.**—The chief method by which the Bank may exert an influence upon the pace of economic activity in Canada is through the regulation of the quantity of credit afforded to the chartered banks. It has been noted that the chartered banks are required to hold a minimum reserve of five per cent. of their deposit liabilities with the Bank of Canada. Hence, as they expend their loans to business it will be necessary for them to increase their reserves with the Bank. This gives the Bank of Canada its power. The Bank is able to set the terms upon which it will grant loans or accommodation to the chartered banks. In so far as these terms are easy or onerous it is possible for the Bank to act in a way which favours expansion, or which may make contraction by the chartered banks necessary when dealing with their customers. If the Bank of Canada makes accommodation difficult to the chartered banks, they in turn will be forced to restrict credit to their clients.

Another resource of the Bank lies in its power to deal in foreign exchange. Thus, if the Canadian dollar is "weak" in the foreign exchange markets, i.e., tending to fall in value, the Bank of Canada can intervene by purchasing Canadian dollars with gold or by selling foreign securities from its reserves. Conversely, by the sale of Canadian dollars abroad it can depress the value of the Canadian dollar in foreign currencies. The main objective of exchange manipulation by the Bank is to maintain the Canadian dollar at as steady rate of exchange as possible in relationship to such currencies as the English pound sterling and the American dollar.

The advantage of a stable rate of exchange with these



countries in view of the great volume of trade and commerce which is carried on between them and Canada, is very great. It should be understood, however, that the Bank can only exert a limited influence in this direction. The long-term factor in maintaining stability in the external value of the Canadian dollar rests upon the general conditions of trade and industry within Canada. To cope with this long-run situation the Bank must rely upon its ability to control credit within Canada. Mitigating fluctuations in business in Canada may be viewed from another angle as reducing the amplitude of booms and depressions and ensuring a great degree of business stability within the country.

Apart from these methods the Bank of Canada, in conjunction with the Department of Finance, is playing an important part in working out plans with the monetary authorities of other countries by which it is hoped to restore to the world an easy and convenient international monetary system. As a country which exports and imports large quantities of goods, Canada has an important interest in stable relations between the monetary units of different countries.

The establishment of the Bank of Canada has profoundly changed Canada's banking and monetary system, but it will require a period of years before the effect of this change becomes fully manifest. It is too soon to judge how successful this new institution will be in achieving the aims set forth at the beginning of this chapter. Apart from the broader purposes of policy for which it was established, it should perform a useful function in acting as banker and fiscal agent for the Dominion and in managing Canada's national debt.

*Exams*



## CHAPTER XIV

### TRANSPORTATION

**Importance of Transportation.**—The exchanging of goods implies the possibility of transporting them from one place to another. If transportation were not possible, markets would dwindle and die. Commodities could not be assembled in one centre from many parts of the world and then be sent out to new owners in a widespread distribution. Our immense industrial plants could not subsist if they lacked the facilities to bring raw materials together or to carry away finished products. Without transportation our great modern cities could not have come into being. In order to maintain their populations they require great quantities of food. Every large city is at the centre of a network of transportation lines by which it secures supplies and lives.

This was well known before our time, for the great cities of the past faced a similar problem, and the simpler methods of transportation upon which they relied—the driving in of animals, the use of the small vessel, the pack horse, the caravan, the cart, and the open road—have not passed out of existence. They still serve for transporting commodities short distances. Beyond that they have been superseded, while the range of transportation has been enormously extended by the modern steamer and railway. Even for short distance carrying, the draught horse is disappearing before the advance of the motor truck. The significance of the development of modern transportation



is so great that some historians consider it the outstanding development of the nineteenth century, responsible for more changes in the form of modern society than any other single cause.

**Roads and Canals.**—The beginnings of modern transportation date from the last quarter of the eighteenth century. During the supremacy of the Roman Empire a great system of roads was built, but these highways fell into disrepair during the middle ages and the roads of Europe and England became almost unbelievably bad. As a result transportation, wherever possible, was by water. Then in England three great road engineers, Metcalfe (1717-1810), Macadam (1756-1836), and Telford (1757-1834), put the highways of Britain in order. About the same time an engineer, named Brindley, turned his attention to inland navigation and successfully built a canal  $10\frac{1}{4}$  miles long from the coal mines at Worsley to Manchester. This canal was a great success and greatly lowered the cost of coal in Manchester. Between 1760 and 1830 many canals were built in England.

**Railways.**—Meanwhile the steam engine was being developed and, in 1815, George Stephenson perfected a locomotive which "contained all the essentials of the twentieth century engine." In 1825 the Stockton and Darlington Railway was opened. In America the first line to be built was the Baltimore and Ohio which had 13 miles in operation by 1830. In Canada the first railway was constructed in 1836 between St. Johns, Quebec, and La Prairie. Locomotives came into use there in 1837. When the success of the railways had been demonstrated, lines were built with great rapidity in Great Britain, the most active period of railway construction being between 1825



and 1846. In the United States and Canada the construction of lines coincided with the development of the two countries. At the present time there are over 290,000 miles of line in Canada and the United States—considerably over one-third of the total railway mileage of the world.

Two features in the history of rail transportation may be especially noted. The early railways were built with different widths of track, broad gauge railways adopting a seven-foot width. Stephenson, in constructing the Stockton and Darlington Railway adopted a 4 ft. 8½ in. gauge which was the width of the coal carts in use at the mines. After a series of tests in England, Stephenson's choice was adopted as *the standard gauge* and is now in use in most countries. The other feature of importance is *the consolidation of lines into vast systems*. The first railway companies built only short lines which involved frequent transshipments of freight and did not meet the needs of shippers who wished to send goods considerable distances without having to make arrangements with different lines. The consolidation of short lines into continuous systems began and this tendency has continued until the present time. After 1918 the British railways were consolidated into four great systems serving different parts of the country. In the United States, there are at least half a dozen systems each with over 10,000 miles of line. In Canada, the Canadian National system and the Canadian Pacific Railway control most of the mileage. Both these systems represent the consolidation of what were originally a large number of independent lines.

**Magnitude of Railway Enterprises.**—Railways are among the greatest of our economic enterprises. The cost of con-



struction is comparatively large, the range of cost being from \$12,000 to \$15,000 per mile of line on cheap open prairie and from \$200,000 to \$250,000 per mile when a line is built where land values are high, or where the nature of the country necessitates frequent tunnels, bridges, and cuttings. The Ontario Hydro-Electric Commission estimated the cost of a line between London and Toronto at approximately \$100,000 per mile. In addition to actual construction cost, railways have other expenses of a general nature. They also require a varied and extensive equipment, locomotives, cars, shops, terminals, etc. If the extent of a system is over 10,000 miles, the capital investment is enormous. In 1940 the Canadian Pacific Railway had a mileage of 17,153 miles. The capital liability of the company was \$1,213,760,853 and the gross earnings from operations were \$171,535,475. The Canadian National Railway had a mileage of 21,847 miles with a capital liability of \$1,983,808,998 and gross earnings from operations of \$212,300,711. These figures show the financial magnitude of railway enterprises. In small business ventures there is a rapid turn-over of capital. This is not characteristic of the business of railway transportation where the annual income is usually between one-fifth and one-quarter of the capital sum invested.

**Fixed Costs.**—All railway companies face a burden of fixed costs, though in some instances, by skilful management, the burden may not be very heavy. Fixed costs is the name applied to certain payments which must be faced annually by a railway company while it continues to operate a road, whether the traffic carried is light or heavy, whether the income for the year is great or small.

**Interest on Outstanding Bonds.**—Few railway companies



have been fortunate enough to secure all the funds necessary for their line from shareholders. They have usually had to borrow and, when this has proven necessary, bond issues have been sold. The interest on these bonds must be paid regularly as it falls due, or the company will be declared insolvent. In 1915 the Canadian Northern Railway System after paying all working expenses and taxes had net earnings of \$6,623,291, but the interest on its funded debt amounted to \$8,263,574. This deficit created a situation that led to the line being taken over by the Canadian Government.

**Taxes.**—Another cost of a fixed nature is the payment of taxes. Railways are subject to heavy taxation which is not affected to any extent by changes in traffic conditions.

**Operating Expenses.**—In addition to these two items, interest on funded debt and taxation, it is obvious that certain *general managerial, operating and maintenance expenses* must be incurred while a railway line is in operation. The cost of general management cannot be eliminated and the expenses of operation and of keeping equipment in repair cannot be reduced below a certain level. There is, therefore, a certain permanent fixed cost involved in the operation of a railway. The conditions of operation have been carefully analysed for the railways of the United States and the results tabulated as follows:

#### CONDITIONS OF OPERATION

	I	II	III
	Independent of Volume of Traffic	Dependent on Volume of Traffic	Total
Fixed expenses .....	25	0	25
General operating expenses .....	3	0	3
Maintenance of way and structures	10	6	16
Maintenance of equipment .....	7	7	14
Conducting transportation .....	14	28	42
Total operating expenses .....	34	41	75
Total .....	59	41	100



This shows for each class of expenses the percentage that can be varied according to the volume of traffic. The significance of this analysis is that it reveals clearly that in periods of severe depression railway companies are unable to reduce their expenses in proportion to their reduced traffic. About 60 per cent. of all their annual expenses must be incurred quite independent of the volume of traffic carried. Every period of depression sweeps many railways into bankruptcy. The prosperity of a railway company is very intimately connected with the prosperity of the territory its lines serve. Perhaps more than any other enterprise it gains by the prosperity of its patrons and loses by their economic distress.

**Charges.**—A railway offers *two distinct services*. Literally it is a special type of road. Its use necessitates sufficient charges to maintain it in a state of efficiency and to yield a fair return on the money invested in its construction. Lines of railway are often leased to other companies who supply the rolling stock and operate the roads. They are required to keep them in good condition and to pay a sufficient rental to yield a fair return to the shareholders. Another service is the work of conveying goods from one place to another, the work of the carrier. When the early railroads were constructed they were regarded merely as special roads, and parliament made provision that all carriers, upon the payment of a toll, should have the right to use them. It was soon found impracticable to operate a railway in this manner, and the railway companies became not only the builders and maintainers of railroads but common carriers as well. That is, they agreed not only to furnish the road but to supervise and direct the carriage of any goods entrusted to them. The charge for transporting goods is therefore based on two



separate items, the cost of *maintaining the road* and the cost of *forwarding and carriage*.

This duality of cost does not render the determination of rates difficult but another aspect of railway cost does. That is, that costs are, to a very large degree, incurred jointly for both the carriage of many varieties of freight as well as of passengers. It is impossible to discover definitely the whole cost of carrying a single article of commerce, as distinct from the cost of carrying other articles. The cost of carrying each article is shared with the cost of maintaining the service of carriage for the whole volume of traffic. Each article enjoys in common the use of the facilities offered by the railway. In the case of train load shipments, the wages of the train crew and the cost of the coal burned by the locomotive can be definitely attached to this particular movement of traffic, but these items are a comparatively small part of the whole cost of transportation. But a great deal of traffic does not move in train-load shipments but in car lots, or less than car lots. It is therefore a very difficult problem to determine a fair rate for the carriage of either passengers or articles of freight.

The necessities of the case are clear. The rates should be so adjusted as to bring in from a normal volume of traffic, *sufficient revenue to pay fixed charges, all expenses of operation and upkeep*, and to leave *the shareholders a fair return* from the money they have invested in the enterprise. This must be accomplished without making unfair discriminations in charges as between different classes of traffic. It is a simple enough matter to state the requirements of the situation, but it is far from easy to determine how much each item of traffic will contribute to the general fixed charges of the road over and above the



costs that can be directly traced to its carriage. This is the problem of determining railway rates.

**Fixing Rates.**—At first glance it might appear that a simple and fair method of fixing rates might be devised by requiring that every ton of freight should pay the same charge per mile carried. A little examination will show that such a scheme would not work satisfactorily, for several reasons. In the first place, it neglects to take into consideration the value of the commodities carried. A relatively cheap article like coal or oats, would pay a very high percentage of its value in freight charges if carried any distance, while the charge on such valuable commodities as silk or tobacco would be a mere trifle compared with their value. Such a system would penalize with high rates the cheaper commodities of everyday life and favour valuable articles and luxuries. Secondly, this system would not recognize the very important factor of bulk. A locomotive has to haul the cars in which commodities are carried as well as the commodities themselves. These cars are so much dead weight—in themselves freight cars are not paying-traffic. Where the commodity is heavy and compact, it is possible to load cars to their full weight capacity. Light, bulky commodities render this impossible. The proportion of dead weight to be drawn, when a car is loaded with feathers or wicker furniture is greater than when it is loaded with wheat, coal, or iron ore. Of the latter commodities, an engine can haul a much larger tonnage in paying freight.

Different rates are therefore charged for different commodities, but it does not follow that these are fixed on a strict mileage basis. Terminal costs and the cost of loading and unloading at stations are heavy items of expense for the railways. The cost of handling a shipment is divided



into two parts, the cost of *services at terminals* or stations, and the cost of *haulage*. The first item does not vary with the length of the haul, the second does. Therefore, when these two items of expense are combined into one charge, the rate per mile for a long haul should be less than for a short haul. The carrying of letters is an interesting illustration of this principle. Here the cost of haulage per mile of the individual letter is so small that differences in distance are neglected in most countries. The only charge that is made by the post-office is for terminal services, collecting, sorting, and distributing the letters. As a result the same stamp will carry a letter from any one point to any other in Canada. In cities, where only one post-office or terminal is affected, the rate is usually lower.

These aspects of the problem suggest some of the difficulties encountered in fixing railway rates. When we consider the additional complications caused by competition for traffic between different lines of railway, the competition between rail routes and water routes, the influence of individuals, rival cities or districts eager to obtain special advantages, and the fact that the facilities of no two lines of railway are quite alike, it will be recognized that the problem is one of great intricacy. It is because of the absence of exact knowledge as to the cost of carrying an article combined with these other factors, that discussion and agitation continually arise as to the fairness of the rates actually levied.

In general, railway officials aim to charge rates that will bring in the largest net return to the company. The rate will not be lower than the costs that can be traced actually to the movement of a given item of traffic permit, unless the company wishes to encourage a certain traffic that may later prove profitable. This is, however, an exceptional



circumstance. On the other hand, if the rate is placed too high, traffic will fall off to such a degree as to endanger the revenues of the railway. Between these two limits which afford considerable opportunity for variation, the rates of a railway will be fixed. In railway enterprises as elsewhere, the aim of the company is to secure the largest possible net returns.

**Governmental Control over Railway Rates.**—As within certain areas a railway has a monopoly of transportation facilities, this presents a danger to the public. If there is no means of restraint, a railway may levy rates that will yield to it a larger profit than the investment of the shareholders in it warrants. Further, under these circumstances a railway is in a position to grant special favours to its friends in the way of reduced rates and thus discriminate against the public at large. The possibility of such practices has led most governments to establish some form of *regulative authority over railway rates*. In England, the United States, and Canada this power is delegated to a commission. These commissions aim to allow the shareholders of the railways a fair return on the money invested, and to prevent unjust discrimination between the rates charged to different individuals or upon different kinds of traffic.

**Water Transportation.**—The development of shipping and ocean transport in conjunction with the railways revolutionized the conditions of international trading in the nineteenth century. Sailing ships have almost passed out of use; wood has given way to iron in the construction of vessels; and, in turn, iron has been supplanted by steel. Steam-power made ships independent of the wind, and rendered possible the establishment of lines of traffic and schedules of sailings. These steamship routes with their



definite dates of arrival and departure greatly lessened the uncertainty of water transportation and made possible the regular shipment and delivery of goods. Vessels adapted to particular kinds of trade have been evolved. Tank vessels carry oil in bulk; vessels equipped with refrigerators convey perishable commodities, dairy products, fresh meat and fruits, great distances without serious deterioration. Tramp steamers prepared to take large cargoes of commodities, like grain or mineral ores, can be chartered at any large port. These changes in water transportation are parallel to the development of railways on land.

Transportation by water is *cheaper than by rail*, and as a result commodities almost invariably seek the nearest route to tide-water. Great canals such as the Suez and the Panama have been built to shorten ocean voyages and to make trans-shipment unnecessary. Water transportation is cheaper because of the large cargo a vessel carries. An average cargo steamer in the grain trade between Montreal and Liverpool, coming over in ballast, will return with about 7,900 long<sup>1</sup> tons of grain in her holds. She will have a crew of from forty to forty-five hands and the engines will require a little over 600 tons of coal during the round trip. Under normal conditions the whole cost of the trip including insurance on both the vessel and the cargo, the wages of the crew, etc., will total about \$22,000. Thus the cost of transporting wheat a distance of 3,000 miles, is less than eight cents per bushel. In comparison, the rate on wheat from Edmonton to Fort William, a distance of 1,234 miles, is 15.60 cents a bushel.

**Truck and Autobus Traffic.**—The growth of motor traffic during the last thirty years has greatly stimulated the

<sup>1</sup>A long ton is 2,240 pounds.



construction of first-class roads. There are over 116,192 miles of gravelled or better highways in Canada. This development has been followed by a striking increase in the number of motor vehicles employed as carriers. In 1940 there were registered in Canada 249,631 commercial cars or trucks. Statistics do not differentiate where these were used privately and where they were employed as common carriers, but it is well known that large areas are now served by trucks competing as carriers against the railways. This competition has proven particularly effective for distances under two hundred miles. The particular advantage of the trucker is his ability to give door to door service. Truck competition has made serious inroads upon railway revenues and created a serious problem, since the railways remain necessary for long hauls. In passenger carriage the motorbus creates a similar situation.

**Aeroplane Service.**—Within the last twenty years there has been a marvellous expansion in travel by aeroplane. Both the Atlantic and the Pacific have been spanned and there are comprehensive systems of air transport on every continent. In Canada the aeroplane has proved exceptionally convenient for rapid movement between east and west and for maintaining connections with the northern portions of the country.

*The effect of cheap transportation* by land, water and air has been to bring the whole world within the scope of a single market. Supplementing and speeding up the process of exchange are elaborate systems for the transmission of intelligence. Cables, wireless, telegraph and telephone lines make it possible for the business man to keep in touch with all parts of the world of trade and commerce, from day to day. Everybody listens to the radio.



## CHAPTER XV

### TRANSPORTATION IN CANADA

**Transportation.**—The outstanding features of a system of transportation in any country are determined by that country's physical characteristics. This is especially true of Canada. Although it is a country of immense area, the spread of population northward scarcely goes beyond five hundred miles, while the distance from coast to coast is about four thousand. The Great Lakes and the St. Lawrence, a magnificent natural system of waterways, penetrate to the heart of the continent. It is not unnatural that the development of transportation facilities should be influenced by these facts. The visitor to Canada will be impressed at once with the greatness of her two trans-continental railway systems, and the magnitude of the traffic that goes by water from the head of Lake Superior to the ports on the lower lakes and to Montreal by the St. Lawrence.

**History.**—The history of Canadian transportation falls naturally into four periods. (1) The first period has its beginnings far back in the French régime, and is concerned with the *discovery of routes* and with the growth of traffic and development along the waterways. (2) Between 1850 and 1870 the separate colonies in British North America made strong efforts to secure *connecting* lines of railway. These efforts resulted in the construction of the *Grand Trunk Railway*, and later, after the Act of Confederation, the *Intercolonial Railway* was built. It is



interesting to note that with political union consummated, the name "Intercolonial" lost its original significance. (3) The *construction of the great transcontinentals* marks the third period from about 1870 to 1915. The main line of the Canadian Pacific Railway was completed in 1885. Between 1900 and 1915, the Canadian Northern, the Grand Trunk Pacific and the National Transcontinental Railways were completed. (4) The final period is one of *consolidation* under the stress of the war and economic depression. The three last mentioned systems, along with the Grand Trunk and the Intercolonial Railways, were merged under one management to form the *Canadian National Railways*, under the control of a Board appointed by the Dominion of Canada.

**Waterways Main Avenues of Transportation.**—In Canada, until 1800, there were practically no transportation facilities beyond those which nature gave, except a few shallow canals on the St. Lawrence. The great north-west was unknown, save to the lonely voyageur and the fur trader. In Quebec and the Maritime Provinces some inland parts were settled, but most of the population dwelt along the navigable streams. Ontario lacked settlers until the American War of Independence, ending in 1784, drove the United Empire Loyalists to Canada. Settlements in Ontario also naturally followed at first the shores of the waterways. As an inland province, however, Ontario required an outlet to the world, and traffic, in so far as it did not go by American routes, sought the St. Lawrence and the Ottawa rivers. In short, the waterways were the main avenues of transportation, and they were the first to be improved in a large way by engineering construction.

**Canals.**—The first large canal to be built was the Welland Canal, which was completed in 1829. The Welland



Canal overcomes the barrier to navigation formed by Niagara Falls, the difference between the levels of Lake Ontario and Lake Erie being  $325\frac{1}{2}$  feet. The new channel, with improvements to the St. Lawrence river, which included the opening of the Lachine Canal in 1825, gave the people of the western Ontario peninsula an outlet by water to Montreal. At the same time it was believed that a great deal of the traffic from Michigan and other western American states would use this route to the sea. The channel of the St. Lawrence continued to be improved. There followed in succession the construction of canals at Cornwall in 1843, at Beauharnois in 1845, and at Williamsburg in 1847.

An *alternative route* which was opened in 1834 was provided by the Rideau Canal between Ottawa and Kingston. This canal was constructed by the British Government as a result of experiences gained during the war of 1812-15 with the United States. In this struggle it was shown that traffic on the St. Lawrence was likely to be interrupted on account of the proximity of the channel to the United States. For military reasons, therefore, Great Britain desired a safe route to the great lakes and the main settlements in Ontario. With the construction of the Rideau Canal it was possible to come up the Ottawa river to Ottawa and then to proceed to Kingston at the foot of Lake Ontario by way of the new canal. "Between the completion of the Rideau Canal in 1834 and the completion of the Grand Trunk Railway between Montreal and Toronto, it was regularly used by tens of thousands of immigrants *en route* to Upper Canada." The Rideau Canal is now scarcely used. Only 25,690 tons of traffic passed through it in 1932.



**Development of Waterways System.**—Since the original construction of the Welland Canal and the canals on the St. Lawrence, this whole system of waterways has been greatly developed. Between Montreal and Prescott there are seven separate canals. Between Montreal and Quebec “submerged” canals or channels have been dredged through shallow parts of the river. The depth of the ship channel between Montreal and Father Point is 30 feet. The depth of the canals between Montreal and Lake Erie is 14 feet. The Welland Canal has been remodelled on several occasions. The Welland ship canal was completed in 1932, with a depth of 30 feet. There are two canals at Sault Ste. Marie connecting Lake Superior and Lake Huron which form another essential link in the great lakes transport system. The Canadian canal was opened in 1895, the American some years earlier. The depth of the Canadian canal is  $18\frac{1}{4}$  feet. The American Government has recently made further improvements on this canal with the result that it has a depth of over 24 feet during the greater part of the navigation season.

The *value of these improvements* is that they permit the navigation of large vessels. At the present time lake vessels, capable of carrying 12,000 ton cargoes can load at the head of Lake Superior at Duluth, Fort William, or Port Arthur and proceed to ports on Lake Huron or Lake Erie. With the opening of the Welland ship canal these large lake carriers are able to enter Lake Ontario and travel as far east as Kingston or Prescott. In 1929 over 94,000,000 tons of traffic were carried through the canals<sup>1</sup> at Sault Ste. Marie. The grain movement from Lake Superior and Lake Michigan ports to Lake Huron and Lake Erie ports in 1929 exceeded 10,000,000 tons. Of this

<sup>1</sup>Both sides of the river.



amount over 8,000,000 tons came from Fort William and Port Arthur; 2,000,000 tons were shipped to Port Colborne and St. Lawrence seaports, and about half of this was transhipped at Port Colborne.

This transshipment was necessary because of the depth of the Welland Canal at that time and of the canals on the St. Lawrence. A channel of fourteen feet depth does not permit the use of vessels which carry more than 3,000 tons cargo. With the reconstruction of the Welland Canal allowing the larger carriers to enter Lake Ontario, a project is now under consideration to deepen the St. Lawrence waterway from Lake Ontario to Montreal. Since for 113 miles the St. Lawrence is a boundary line between the United States and Canada, this plan provides for an international undertaking, with the support of both the governments of the United States and of Canada. The plan provides for a channel of probably 27-foot depth from the head of Lake Superior to the sea, and the advocates of the scheme argue that this will permit sea-going vessels to enter such inland ports as Chicago, Duluth, Fort William and Port Arthur, and load cargoes for Liverpool, Glasgow and other overseas destinations. Opponents of the proposal argue that only small ocean-going ships are likely to engage in navigation on inland waters, and that the project is an expensive one which will not produce the results claimed for it. No final decision has as yet been taken.

Other canal systems in Canada are of slight importance to-day, owing to the increase in railway facilities. They remain, however, potential competitors of the railways, should their rates advance beyond a certain point. The



total length of the canal system of Canada is 1,846 statute miles and the actual mileage of canals and locks 509.40 miles.

**Need for a Connecting Line of Railway.**—The chief activity of the period between 1850 and 1870 was the attempt of the separate colonies of Nova Scotia, New Brunswick, and Canada to secure easy communication with each other by a line of railway. The provinces by the sea felt their isolation, while Upper and Lower Canada desired a main trunk line that would not only give them traffic connections with each other during the winter, but would also provide them with an ocean port. The fact that Canadian waterways were out of service during the winter meant a practical tie-up in transportation during that period. In addition, the British government, which then maintained the forts at Quebec and Halifax, saw that a railway would reduce the cost of maintaining these posts by facilitating the movement of troops and supplies from one fort to the other. The most enthusiastic support, however, came from those who believed that a railway from Sarnia, in the western Ontario peninsula, to Montreal would attract a large part of the traffic of the middle west to the Canadian port in preference to New York.

While the original plan to build a *grand trunk line* from Sarnia to Halifax failed to materialize owing to political differences the Grand Trunk Railway was organized and built a line from Sarnia to Montreal. In 1853 the road obtained a connection with Portland in Maine, an ice-free seaport. The Grand Trunk suffered many initial difficulties and vicissitudes, but gradually built up a system that for many years was the most important in Ontario.

The construction of the Grand Trunk gave the colony of Canada a railway, but did not provide connections



between it and Nova Scotia and New Brunswick. This was accomplished later, when the construction of the *Intercolonial* Railway was made part of the compact of Confederation in 1867. The line was built by the Dominion government and opened in 1876. The route selected was determined more by military than by economic considerations. The Imperial government, which guaranteed the Canadian loan necessary for the construction of the line, stipulated that the route followed should be as far as possible from the American frontier. In deference to this wish the Intercolonial followed the sea coast of New Brunswick instead of the shorter and, in every other way, more desirable route through the interior.

With the formation of the Dominion of Canada by the Act of Confederation, the project of a *transcontinental* line took shape. It followed the acquisition of the North-West Territories and Rupert's Land from the Hudson's Bay Company and became a part of the negotiations which led to the inclusion of British Columbia as part of the Dominion. In addition to the desirability of actually connecting British Columbia with the eastern provinces and the general wish to have a transcontinental railway, there was a possibility that settlers from the United States, settling in what are now the provinces of Saskatchewan and Alberta, might have secured part of that territory for the United States. The construction of the *Canadian Pacific Railway* not only established easy communication between British Columbia, Manitoba, and the east, and opened for settlement a wide area of fertile land, but was also a visible sign of the unity of the Dominion.

**The Canadian Pacific Railway.**—The Pacific Railway was first promoted by the Government, and after various difficulties an agreement was made with the Canadian Pacific



Railway Company by which the latter was given extensive aid. This included a money subsidy of \$25,000,000 and a land subsidy of 25,000,000 acres. Construction was begun in 1881 and the main line was completed by 1885. The Canadian Pacific Railway Company has always been conducted along progressive lines. It has built a great many branches as feeders and absorbed quite a number of independent lines, so that its system not only covers the whole Dominion, but its connections extend to many points in the United States. It has built up a great fleet of ocean vessels which ply on both the Atlantic and the Pacific. The magnitude of the company's operations makes it well known the world over.

**A Second Transcontinental Line Planned.**—For a generation the Canadian Pacific Railway continued to be Canada's only transcontinental line. In the early years of the present century Canada enjoyed great prosperity. The west developed rapidly and immigration poured in from Europe and the United States. New towns and cities sprang up quickly and there arose a demand for increased and competitive railway facilities to serve the west. With only one transcontinental line the western settlers felt too much under the control of the C.P.R. To this demand the Federal Government gave heed. Two applicants sought the privilege of building the proposed new line—the Grand Trunk Railway, which had a firm hold in Ontario and desired western connections, and the Canadian Northern Railway, a western system which began in Manitoba in 1896, and desired an eastern outlet. The Dominion Government entered into an agreement with the older company, the Grand Trunk, for the construction of the Grand Trunk Pacific Railway between Winnipeg and Prince Rupert, B.C. The Dominion of Canada



agreed to construct the eastern part, the National Transcontinental Railway from Winnipeg to Moncton, New Brunswick. After construction was completed, the whole system was to be operated under an agreement with the Grand Trunk Railway.

**A Third Transcontinental Line.**—The work of construction proceeded. Meanwhile, the Canadian Northern Railway, which had been left out of this scheme, managed to secure federal and provincial aid, built eastward, and thus developed another transcontinental line. The net result of these activities was that railway mileage in Canada doubled between 1900 and 1915. In 1900 it was 17,657 miles, in 1915 it had become 35,582 miles. Canada had three transcontinental lines, one more than the country required because the volume of traffic was not sufficient to maintain such a rapid increase in transportation facilities. The difficulties were increased as the war brought to an abrupt halt the flow of immigrants into western Canada, and at the same time raised operating costs and checked the normal productive life of the country.

**Consolidation.**—After being forced to extend aid to the weaker systems in 1916, the Dominion Government appointed a *Royal Commission* to study the transportation problem. The commission advised the government to assume control of the *Canadian Northern*, the *Grand Trunk Pacific*, and the *Grand Trunk Railways*. This policy the government pursued, and these railways were formally merged into the *Canadian National Railways*, together with the *Intercolonial Railway* and the *National Transcontinental Railway*. Continued difficulties led to the appointment of a second *Royal Commission* in 1931, which recommended certain administrative changes in the Canadian National



Railways and closer co-operation between the two systems with a view to reducing the expenses of operation.

The Canadian National Railways, which grew up in this way as a legacy of defective transportation policy in the past, at the outset did not yield sufficient revenue to pay expenses. In addition to the annual deficits, interest on various bond issues that were guaranteed by the government, had to be met out of the federal treasury. These annual payments constituted a severe drain upon the revenues of Canada. Indeed, for a period one of the gravest financial problems that the Dominion faced was how to check the constant drain of funds that the too exuberant transportation policy of past years had entailed. The policy of that era left Canada with a widespread system of transportation competing with and supplementing the Canadian Pacific Railway. During the war both railways were taxed to their utmost capacity by the enormous volume of Canadian production.

**Powers of Board of Railway Commissioners.**—The general *supervision of rates and services* rests with the Board of Railway Commissioners. This board was instituted in 1903, following the presentation of complaints by the public that the railways were charging unduly high rates and in other ways acting as a monopoly. The Board now consists of six members and it has a regulative power over the location, construction, and operation of railways in Canada. It plays a particularly important part in the setting of maximum rates for the carriage of traffic. These must have its approval. It also adjudicates upon complaints when the railways are charged with unjustly discriminating in favour of individuals, industries, or districts. The work of the Board since its inception has been very successful and the *regulation of telephones*,



*telegraphs and express rates* has also been committed to its charge.

**Board of Grain Commissioners.**—Complaints followed the movement of grain from the lake ports in the autumn of 1922. It was alleged that a combine had been formed by those in control of the shipping to charge an excessive rate. An investigation by a Royal Commission revealed the fact that vessel operators controlled a sufficient proportion of the bulk freighters on the upper lakes to constitute a virtual monopoly. It was recommended that the supervision of rates charged for the transportation of grain between Canadian lake ports be placed in the hands of a commission. This recommendation was accepted by parliament and was made law in 1923. The *Board of Grain Commissioners* was entrusted with the care of supervising rates for grain carriage on the Great Lakes.

**Main Traffic Routes.**—The flow of traffic in the Dominion moves along three main routes. (1) The larger part of the immense grain crop harvested on the prairies is available for export and finds an outlet *via Winnipeg and the Great Lakes*. When the lakes are closed, some grain goes east by rail. The return flow of traffic consists of coal and manufactured goods of the east destined for the agricultural west. (2) The opening of the Panama Canal led to the rapid development of *Vancouver* as a port of grain shipment to Great Britain. Vancouver is also the Canadian seaport to which traffic moves intended for Australia and the Orient. The facilities for shipping by this outlet have grown and this route now attracts most of the produce exported from the province of Alberta. (3) Traffic between the United States and eastern Canada is very heavy. Canada exports paper and pulp in large



quantities to the American market. In return, Quebec and Ontario draw most of their coal supplies from Pennsylvania. There is also, of course, a general interchange of trade between the two countries.

An attempt is being made to establish a coal route from Alberta, which has rich coal deposits, to Ontario. That province, at various times, has suffered from coal strikes and coal shortages in the United States, and it is with a view to making it independent of the fluctuations of coal production in the United States that the possibilities of the new source of supply are being carefully examined. Should the venture prove successful, it will add to the flow of traffic east at the expense of that passing between the United States and Canada.

The possibility of opening a short *route to Europe by Hudson Bay* was before the public for many years. The advantages of such a route excited a great deal of discussion in Western Canada. As a result of agitation, terminals costing over \$6,000,000 were constructed at Port Nelson and a line of 325 miles of rail was laid in the direction of this proposed port from LePas, Manitoba. Later Churchill was substituted as a better port. The railway was completed to this terminal in 1931 and is operated by the Canadian National Railways. On account of the late opening of the channel to the Bay, the short season, and the dangers from ice, it is doubtful whether this route will prove an economic success.

With the completion of the Hudson Bay route the proposed deep waterway on the St. Lawrence is the only transportation project of magnitude before the Canadian people at the present time. The construction of an outlet from the Peace River country in Alberta to the Pacific Ocean, however, is likely soon to come to the front.



**Canadian Government Merchant Marine.**—The war of 1914-18 had far-reaching effects upon ocean shipping. The enormous demands for transportation and the heavy losses of ships from enemy action led the Dominion Government in the later years of the war to embark on the project of shipbuilding. Prior to end of 1919, 19 vessels were delivered. This merchant fleet reached its greatest development in 1924 when it numbered 57 vessels of various types. The operation of this fleet by the Government under peacetime conditions proved a failure and heavy annual losses were incurred. Finally in 1936 the last vessels remaining were sold.

The second great war produced an even greater emergency in shipping than that in the previous struggle. Canada was building ships to replace the losses and it was determined that a number should be turned over to a Crown company under the Department of Munitions and Supply called the Park Steamship Company. The vessels operated by this company were employed in services important to the United Nations' war effort. It is likely, for some years at least that Canada will continue to own and to operate these vessels either directly or indirectly for the ordinary purposes of international trade.



## CHAPTER XVI

### THE PROBLEM OF DISTRIBUTION

**Distribution.**—In the preceding chapters we have made a brief analysis of the forces, conditions, and institutions involved in normal economic activity. The power of human wants, the gifts of nature, the toilsome efforts of men, and the forms of business organization have each been surveyed and discussed separately. These separate studies have been made purely in the interests of clearness, for it would be impossible to glean much information of how we live as a people, if an attempt were made to examine all phases at once. With the knowledge we have gained, let us pause and cast a rapid glance at the process as a whole.

The basic factors we have considered are: (1) human beings,—people with a variety of wants upon the satisfaction of the more important of which their continued existence depends; (2) a natural environment capable in varying degrees of yielding the products necessary to satisfy these wants; (3) racess of mankind endowed with varying degrees of ability to cope with the physical world, to bring it under subjection, and to secure from it the essential products. The interplay of these factors exhibits to us the modern world of *industry, trade, and commerce.*

At first sight there might appear to be great diversity in the economic life of different nations. But fundamentally this is not so. Examination clearly establishes that, whichever way we turn, there is a *genuine similarity in*



*the processes of getting a living.* In each instance groups of people face the age-old problem of how to satisfy their urgent wants and they seek a solution in much the same way. Of course, variations in character and intellectual endowment cause differences. The opulence of one nation may be due to the thrifty habits of its citizens; the poverty of another may arise from people with a lack of education or of high intellectual development. Soils and mineral deposits differ, the distribution of forest wealth, waterways, and natural harbours is not uniform. Hence in different portions of the globe different commodities such as wheat, cotton, tobacco, coffee, coal or steel are the leading articles of commerce, but in each instance the *production* of goods, the *exchanging* of them and the *consumption* of them goes on continuously. Except among a very few primitive peoples, we find developed everywhere a technique of production and of exchange, the use of money and of facilities of transportation. These agencies minister to the satisfaction of human wants. Among more primitive peoples, processes and institutions may be imperfect and rudimentary but, as we ascend the scale of civilization, they become more complete and elaborate. They appear at their highest working efficiency among the peoples of Western Europe and North America.

**Economic Activity, a Cycle.**—From one point of view, the study of economic activity presents the aspect of a cycle. We begin with the wants of man, then trace out the methods by which he produces goods that, either directly or by exchange, become the means of use and enjoyment. That is, they are used to satisfy wants. The satisfaction of these wants,—food, clothing, shelter, etc.,—maintains life, enables mankind to maintain its numbers and to continue to produce goods which in turn minister to the



satisfaction of wants. So continues the cycle. The processes of production, exchange, consumption, and production repeat themselves over and over again. It would be a mistake, however, to fail to see that actually all these processes are going on at the same time, though for convenience we have studied them separately and in logical order. While men are engaged in producing new stocks of consumable goods, they are just as certainly at the same time consuming the stocks already in existence. Food is being eaten, houses and clothing suffer from wear and tear and have to be replaced. In this manner, day by day, the accumulated stores of society are diminished and, day by day, they have to be replenished by the efforts of men engaged in the productive processes. Under normal conditions man is both consumer and producer.

This leads us to consider what is known as *the problem of distribution*. We have seen that production is carried on with the co-operation of great numbers of people working together or indirectly in relationship with each other. Raw materials are obtained from the farm, the forest, or the mine. These undergo many processes, passing through many aiding hands, before they finally mature into finished products. The problem of distribution is: *What proportion of this fund of finished goods, available for consumption, is to be obtained by each individual who has contributed to its production?* In other words how much money should each receive in payment for his services. It will be obvious that he who is fortunate enough to receive a relatively large payment of money for his services will be able to buy a relatively large share of society's fund of consumable goods, while the man who obtains a relatively small payment for his services will be able to obtain only a relatively small share.



**Determining Rewards for Service.**—Whether the share will be large or small is determined by the value placed upon the services rendered. If the value placed upon these services be low, the reward will be small; if high, the reward will be accordingly large. But, we have seen that values are determined in the market place where the law of supply and demand is effective. It is necessary then, in studying the conditions which determine the size of the reward that goes to each class assisting in production, to examine the sources of supply and demand for each agent of production. We have seen that there are four distinct agents in the production of goods: *land*, *labour*, *capital*, and *enterprise*. Labour and enterprise are efforts made by human beings, and the rewards go to those who put forth exertion. In the case of land and capital goods, the owners of these agents, the men who permit their wealth to be used for productive purposes, receive the rewards.

We shall survey in turn the factors that determine the relative size of the rewards that each class receives.



## CHAPTER XVII

### RENT

**Rent.**—Payment for the use of land is known as *rent*. Land renders the service of producing commodities and provides space for homes, shops, factories, railways, docks, roadways, parks, etc. The suitability of parcels of land for these producing and providing purposes governs the demand for these sections. But, in our study of market price, we have seen that price is determined by the supply of a commodity in relation to the demand for it. We shall consider first how the superior location of land governs the demand. It is important to note that the location of any parcel of land for any use whatever *always enters into an estimate of its value*. The importance of site value is more marked in some cases than in others.

**Advantages of Location near Waterways.**—Adam Smith pointed out that “it is upon the sea coast and along the banks of navigable rivers that industry of every kind naturally begins to subdivide and improve itself.” Before rail transportation developed, rivers and the sea were the chief highways. Hence people who were living on the banks of rivers or on the sea coast were in a better position to exchange goods than people living inland, remote from these natural routes. Under these circumstances, sites on the banks of navigable streams and around seaports were greatly preferred and because of their advantageous location, commanded a high price. The development of railway lines lessened the advantages of locations near water;



but, at the same time, the railways in their passage through inland parts brought advantages of location to other places and gave site values to the lands adjacent to them. The modern network of transportation has extended this condition. Seaports, however, continue to open to the whole world "a market to the produce of every sort of labour." And their importance has been greatly enhanced because lines of communication carry traffic from the interior to the seaport for shipment abroad and carry back the goods that come from distant lands to inland points. Instead of being the centre of a trade involving a small area of surrounding territory, the traffic of half a continent with the rest of the world may pass through the portals of a great seaport.

**Demand for Advantageous Sites.**—Naturally a very keen demand exists for sites located about a fortunately situated harbour. At the same time the supply of land immediately adjacent to it is necessarily limited. A good example is afforded by New York City. Here there is a fine harbour, and the island of Manhattan and the mainland opposite offer excellent docking facilities. But, under modern conditions of transportation, a very large part of the commerce of the United States flows through this seaport and as a result the demand for business sites, dockage and warehouse facilities is exceedingly great. As population has increased, the city has spread out far beyond its original boundaries. Attracted by the advantages of this naturally favoured spot, about seven million people dwell in its neighbourhood. This is one example of how natural conditions favourable to transportation affect the growth of a trading centre, and it is quite clear that here *superiority in site location becomes the leading factor* in the value placed upon land. The same principle may be seen, how-



ever, even in a small prairie town. There the sites on certain streets are commonly considered to be more valuable than the sites on surrounding streets because of their superiority as business locations.

**Agricultural Land.**—While the location of land used for agricultural purposes is a factor in determining its value the fertility of the land is also very important. Agricultural land is *valued both for what it will grow and for its accessibility to market* either by way of road, water, or rail. Not all the most valuable farm land is close to the railways or other means of transportation, but at the same time it is true that, providing the soil is equally fertile a piece of land located conveniently near a market will have a greater value than land not so located. On the other hand, when plots of farm land have equal accessibility to market the more fertile land will be the more highly valued. *The value of farm land represents a calculation based on these two factors, fertility and accessibility.*

**Mineral Lands.**—The richness of a deposit, the ease of mining, the value of the mineral product and the accessibility of the mine, determine the value that will be placed upon it. *Timber berths* show an application of the same principles. In the provinces of Alberta and British Columbia there are certain deposits of minerals and certain heavily stocked areas of timber which have a relatively low value because it would be almost impossible to bring the products to market.

In a general way, as a country increases in population the value of land tends to increase. The presence of more people means a greater demand for food and other articles and consequently a larger volume of commerce. While the world supply of productive land is limited, there are possibilities of increasing it. Areas now under water may



be drained or filled in, effective cultivation may increase the *productive capacity* of land, *lines of transportation* may open up fertile areas which hitherto have been inaccessible. The development of *steam transportation* at the end of the nineteenth century opened up the rich farm lands of America and made it possible for the American and Canadian farmer to sell cheaply in the markets of Europe. As a result farm lands in parts of Europe and Great Britain did not continue to increase, but actually fell in value. The available supply of productive land may be increased by the means suggested above though it is improbable that this increase will be of very great extent.

**Rent.**—*Rent is paid for land because of the services which land is capable of rendering*, and since some lands are superior to others, either in location or in fertility or both, these superior lands, which are relatively scarce in proportion to the demand for them, command a rent. The rent for any given piece of land will be high or low in proportion to its degree of superiority over other land. The term superiority is used here in a very general way. Land may be put to varied uses. The use which commands the greatest money return, or in other words the highest rent, is the use which we have considered *superior*.

A great deal of the available land in America is used by its owners who might, if they so desired, rent it to others. Land that will yield a high rental has a high sale value—land that will command only a low rental has a low sale value. Our study of the causes of high or low rentals has also been a study of the factors which determine the sale value of land. “The term *rent* is also applied to any payment for the use of a thing for a specified period. We speak of the rent of a house, boat, etc., using the word as a synonym for hire.”

710  
280  
430



## CHAPTER XVIII

### WAGES

**Classes of Workers.**—Five classes of workers are directly engaged in the production of wealth. These classes are: (1) unskilled labourers; (2) semi-skilled labourers; (3) skilled labourers; (4) the supervising group such as foremen, superintendents, chief clerks; (5) business managers. The individuals that compose these groups receive as payment for their services *wages* or *salaries*. The distinction between these two terms is that wages is the word applied to payments made for work by the hour, day or week, while a man who is hired by the year is commonly said to receive a salary.

The demand for labour involves the same principles which govern other factors of production, and these principles apply to all classes of workers. The worker is paid wages for his *productive services*. When we consider the productive work of the world we see at once there is a vast variety of services which human beings are depended upon to perform. These services call for different degrees of strength, skill, taste, and intelligence. Further, we note that at any given time there are only so many people required for any given line of effort. More than that number trained to do this service would mean an over-supply; less, a scarcity. On the supply side we observe that men are born with different capacities, have different opportunities of training and education and display different inclinations in the choice of work they desire to follow. Hence the *volume of demand* for various kinds of labour *does not*



*necessarily correspond with the available supply of that kind of labour.* From time to time, in relationship to demand, there may be an over-supply of labour in certain fields with consequent low wages or unemployment, while in other classes or groups the supply may be short with relatively high remuneration and steady employment.

**Relation of Wages to Supply in Unskilled Groups.**—The unskilled labourer is employed upon tasks which do not demand either special training or a high level of intelligence, but rather strength and physical endurance. For labour of this kind there is a considerable demand. Wages, however, tend to be low because the supply of this sort of labour is very large. Even in periods of industrial activity characterized by much building and other constructional work, and a brisk demand for unskilled labour, it is impossible for wages to rise to any height. High wages for unskilled labour will tend to attract the unemployed from other classes and they can compete with the unskilled labourer because no special preparation is necessary for the work. Moreover, the unskilled labourer particularly suffers from fluctuations in the state of industry. When trade becomes slack, constructional work which especially gives employment to the unskilled, is much curtailed or deferred. This greatly reduces the opportunity for employment and at the same time the ranks of those seeking work tend to be swollen by workers who have lost their positions in the skilled or semi-skilled industries. As a result a period of depression in industry bears particularly heavily upon this class. Not only does the unskilled labourer thus tend to receive a relatively *low wage*, but he also suffers most from *irregularity of employment*.

**Relation of Wages to Supply in Semi-Skilled Groups.**—Between the lowest of the unskilled labourers and the highly



trained artisan there is a wide gap, but this gap is bridged by a variety of industries and occupations where some skill is required and some training is of advantage. A great deal of factory work does not call for much previous training, but yet there is quite a difference in the efficiency of the beginner and of the workman who has had some experience. A progressive increase in the amount of skill and intelligence required may be traced through certain industries until, in such occupations as printing and the manufacture or repair of fine machinery, a high level of ability is demanded. The requirements of skill and intelligence act as a barrier, preventing large numbers of labourers from entering these trades. This is common to all skilled industries, and reduces the number of workmen available for employment in them. Further, the diversity of skill required in different industries makes it impossible for a workman trained in one line of activity to pass easily into another. A high class printer would be of little value in a machine shop. If conditions are slack in his own field, the skilled artisan may turn to unskilled labour, but commonly he has no other resource. Each of the skilled groups tends to be separate and distinct.

**Relation of Wages to Supply in Skilled Industries.**—If there be an under-supply of workmen in any skilled group, then the wages in this industry tend to rise. If on the other hand there is an over-supply of workers in any line, the wage rate tends to fall or unemployment becomes prevalent. But in the face of these conditions and notwithstanding the fact that members of one group cannot pass easily over into another, there is an influence at work which tends to keep the supply of skilled workers in each industry roughly equivalent to the demand. In the first place, a certain number of workers pass out of each group



every year through death or disability. This of itself tends to reduce the number in each group unless it is replenished by new recruits. On the other hand, there is a certain number of young men entering industry every year. In learning a trade it is possible for them to enter almost any line. In those skilled trades where there is an under-supply of artisans, it will be easy for them to obtain positions as learners; in those where there is already an over-supply, the reverse will be true. Hence the supply of young men entering the ranks of skilled labour will be drawn into those groups where there is relatively an under-supply and away from those industries already crowded. In this way the supply of skilled workmen in each class is maintained roughly equivalent to the numbers required therein.

**Supervising Groups and Wages.**—While the demand for skilled artisans fluctuates with the state of industry, these fluctuations do not affect the artisan as seriously as they do the unskilled labourer. In normal times the steady well-trained artisan is sure of his job and has a *security of tenure* that places him in a considerably better position than the unskilled worker, quite apart from the *higher wage* that he commonly receives. In this respect the artisan does not differ very much from the superintendent, foreman, or chief clerk. What difference there is lies in the fact that, while it is quite easy to obtain skilled mechanics, it is often difficult to obtain a good supervisor or foreman. This class of labour is largely selected from those who have been trained as artisans, but who, in addition, display qualities of mind and character that make them capable of occupying directive positions. The smallness of this group in proportion to the demand makes it a well-paid class. They become the indispensable people in factory and shop and rarely, even in very hard times, suffer from unemployment.



**Managers.**—Business managers, those who occupy the leading executive positions in enterprises, are drawn in part from the ablest of the preceding group. In many instances, however, they have had special training before entering the factory or works and then acquire a knowledge of the technicalities of the industry with a view to ultimately securing an executive position. This is clearly seen in the engineering industries. Business managers are also drawn from the merchandising and financial branches of an enterprise. Beginning in the office or on the selling staff, potential managers master the financial or commercial details of the business as a pre-requisite to promotion.

The managerial group is a small group in industry, and competition for these posts is very keen. While family connections will sometimes secure a man an appointment of this kind, only *merit* will enable him to hold the position. If a manager is incompetent, the business will suffer and the shareholders will replace him or face the prospect of failure. The long list of business failures that is recorded each year includes many cases of incompetent management. Men who, in the competition of business, reveal their inefficiency as managers drop down into the lower groups. As a result of the scarcity of really good managers, the salary such a man can obtain is relatively high. The responsibilities are great, the opportunities are many, and the supply is very limited. Naturally, good business managers command a high rate of remuneration.

Wages are paid, therefore, on an estimate of the value of the services that the labourer contributes to production. The size of the wage, however, will depend upon the reaction of this value plus the volume of demand for services, upon the available supply of labourers capable of performing the work.



**Effect of Density of Population on Wages.**—While differences in the rate of wages depend upon variations in the skill, intelligence, and character of the wage-earner opposed to the demand for his services, the general level of the wages which prevail in a country is profoundly affected by the density or sparseness of the population. Density of population generally causes a low wage level to prevail. After a certain point is reached greater difficulty is experienced in wresting from nature the supplies of commodities which constitute the necessities and conveniences of life. In China and India very dense populations draw a meagre subsistence from the soil. The tendency of an increase in population to make it more difficult to sustain life, is checked to some extent by the invention of appliances to cope more efficiently with the reluctance of nature to yield her stores. While the immediate effect of mechanical inventions, in throwing men out of employment and thereby entailing a certain amount of suffering, is readily apparent, the real significance of this event is often unperceived. It is that society, by mechanical appliances, is able to maintain its previous volume of production, and can set free a certain number of workers to augment the flow of commodities for the use of man. With the great development of cheap transportation, an increase of population in a country does not cause the hardships that it did in the past. Where a high level of skill and industry is maintained, it is often possible to bring raw materials and other stores from distant lands. The needs of the increased population are thereby diffused over wide areas in different parts of the world and are not so heavily felt.

On the other hand, there is a tendency for population to restrict its rate of increase. In certain countries such as France, the size of families has decreased and the population



remains almost stationary. In this way a country with limited natural resources can prevent the pressure of an increasing population.

**What is a Fair Wage?**—The actual problem of determining what is a fair wage for a given class of labour is one of the most difficult in economic life. While the principle that wages should be paid on the basis of the value of the services that the labourer performs is clear enough, the application of this principle raises all sorts of difficult questions. In modern enterprises different kinds of labour jointly contribute to the production of commodities. Hence arises the problem of what relationship the wages of the different classes of labour should bear to each other. Moreover, since labour works in conjunction with capital goods and land the further question must be considered of the relationship of wages to interest and rent. It is not possible to determine exactly how much value each factor contributes to the whole. If wages exceed a certain level the investment of capital may be discouraged and unemployment result. Another set of considerations is the differences in the nature of the employment. Some kinds of labour are less exhausting than others, some more attractive, some hold out more prospect of security of tenure. Factors of this kind ordinarily depress the wage rate. On the other hand, many of the heaviest and most disagreeable jobs command a low wage rate because they require a minimum of skill for their execution. No general rule can be laid down. The complexity of the problem is one reason for the prevalence of labour disputes in industrial society.



## CHAPTER XIX

### INTEREST

**Interest.**—Interest is the payment made for the use of purchasing power. It is the *sum which a borrower pays to a lender when the latter provides him with ready funds*. These funds are made available to the borrower either in the form of cash or of bank credits which may be turned into cash if desired. In return, the borrower gives to the lender a promise to repay the loan. This promise may be in the form of a simple *promissory note*, a *lien note* or *mortgage* agreement, or any one of various types of *bonds*. Whatever the form used, it names the *date* of repayment and the *amount* to be repaid. Short term loans are usually made in the form of notes, long term loans employ the other forms.

**Straight Note.**—The amount charged for this accommodation is commonly computed as a percentage rate per year. Thus, "interest at six per cent." means that one hundred dollars will be lent for one year for six dollars. In actual business practice, however, the loan may be arranged either as a straight promissory note or as a discounted note. In the former instance the borrower agrees at the end of the year to pay "one hundred dollars with interest at six per cent". He will receive one hundred dollars when the loan is made and at the end of one year his repayment will be one hundred and six dollars. Or his note may be *discounted*. That is, the borrower gives a note agreeing to pay one hundred dollars at the end of one year, and the lender at



*the time of lending* deducts six dollars as interest. In the former instance the borrower obtains the use of one hundred dollars for one year for a payment of six dollars. In the latter instance he obtains the use of ninety-four dollars for one year for a payment of six dollars made at the beginning of the period rather than at the end. In terms of exact interest, therefore, the latter loan is made at a slightly higher rate than the former, approximately 6.4 per cent. as compared with 6 per cent.

**Discounted Note.**—Banks usually arrange their loans in the form of discounted notes, although this is not always insisted upon and many borrowers prefer the other arrangement. There is an interesting difference in view as to the nature of these two methods of borrowing. When the note bears interest payable at the date of its maturity, the view is that the borrower uses the funds productively and the loan “earns” the interest paid. On the other hand when the note is discounted, the transaction is looked upon as a sale. The bank buys the borrower’s note, giving him ready funds for this note which will mature at a future date. *The amount deducted for discount is the premium placed upon the possession of present purchasing power in comparison with the same purchasing power at the maturity date of the note.* The practice of discounting naturally grows out of the habit of business men extending credit to their customers in the form of promissory notes. These notes the holders later take to the bank and have discounted by the banker in order to obtain ready funds to carry on their own businesses.

**Causes of High or Low Rates of Interest.**—The payment of interest presents two main problems. First, how is it possible for a borrower to borrow funds and repay them in full with the additional amount of interest and not



suffer loss thereby? Secondly, what determines the rate of interest at which loans are made? That is, what are the forces and conditions that cause high or low rates of interest? We can best answer these questions by surveying the circumstances under which funds are lent and borrowed, in other words, by examining the supply and demand for funds.

**Incentives to Saving.**—This brings us at once to consider the methods by which loanable funds are accumulated, for, before lending can take place, there must be a supply of funds available for the purpose. The basis of this supply is saving. It is obvious that if individuals spend their total incomes, they will not be able to make loans to other people. The supply of loanable funds is due to the fact that people have saved. The great *incentive* which lies before most people to save is to provide means with which to support a possible old age when strength is no longer great enough to earn a livelihood. More broadly, there is the *desire to lay up for a "rainy day"*, when illness, accident, or old age may make it impossible to work or when industrial depression makes it impossible to obtain work. Closely associated with these precautionary incentives is the *wish to provide for dependents* in case of premature death or disability. This careful view of the possibilities of the future induces a great deal of saving, undoubtedly greatly stimulated by the zeal of life insurance companies.

**Other Incentives to Saving.**—In addition to these motives there are others, some of which operate powerfully to cause saving. First, there is the natural desire of many parents to leave their children with a more plentiful supply of the world's goods in starting life than they themselves enjoyed. Very often after a man has saved sufficient to keep himself and possibly his wife, for the rest of



their days, he goes on working and saving to provide for his children or to *give them a good start in their careers*. Secondly, there are many wealthy men who have continued to save money with a *philanthropic view*. The money saved is ultimately given to found colleges, extend the work of the church, or endow scientific institutions. Finally, wealth is often saved by people simply because, having satisfied their customary wants, other strong reasons for spending do not appear, or they may save because they have habitually done so.

It is evident that all these causes of saving would remain, even if interest were not paid upon the funds saved or laid by for future use. The mere existence of a supply of loanable funds does not lead to the payment of interest. On the other hand, it is clear that the *payment of interest facilitates saving* and, by making it easier to accumulate funds, *encourages saving*. Moreover, the higher the rate of interest received, the greater is the inducement to save. Saving also occurs when corporations pay out only part of their profits as dividends, retaining the rest as reserves. This type of saving, while it does not displace individual saving, has become of great importance in the modern world.

**Main Types of Borrowers.**—This brings us to a consideration of the conditions which lead to a demand for funds. In the middle ages very little borrowing was done. Then, as a rule, the borrower was one on whom misfortune had fallen; illness, death, fire, or famine had visited him, and he sought a loan to tide him over his temporary difficulties. Under these conditions the church held that it was wrong to exact interest if the principal sum were duly returned. But with modern times this condition has changed. It is true that to-day a certain amount of borrowing is done by the necessitous borrower of the former type, but he is not



the characteristic type of borrower. We have two main types: (1) *men actively engaged in business who desire the use of further funds to expand their enterprise or carry on a larger business than they otherwise could.* (2) *governments and states which borrow to develop their projects or to meet unusual conditions such as the prosecution of war.*

In the case of the business man it is obvious that he borrows funds in order to use them productively and thus to increase his own income. He is not the necessitous borrower of the middle ages, but is using the funds that he obtains to build up and enlarge his personal fortune. Naturally, if he sees opportunities which he thinks will bring him in large returns, he is willing to pay interest on funds which will enable him to exploit these opportunities. This explains why, if he is successful in his venture, the business man can repay loans plus interest and yet not suffer loss.

If we probe a little more deeply into this problem, we see that the possibility of the business man creating a fund out of which interest can be paid over and above the principal sum borrowed rests upon two fundamental facts. First, *saving consists essentially in foregoing the satisfaction involved in consuming goods.* To illustrate: under normal circumstances it is conceivable that a farmer might use up all the produce of his farm in living from day to day, but if he chose to deny himself certain satisfactions, he would have a surplus which he might sell and could use the proceeds to obtain additional machinery. In this instance the new machinery would be the reward of his self-denial or saving. Secondly, *the additional machinery would increase the productivity of his farm.* In this way by increasing the volume of production it would repay him for his self-denial. In actual life the saving may be done by one



class of society, but by lending the benefits may be transferred to and shared with another class. As a result the *borrowers are able to pay* the savers, not only the *original sum borrowed*, but also the *additional sum, interest*. Saving thus builds up a surplus which enables society to create an elaborate equipment of machines and other capital instruments. These greatly increase the volume of the world's productivity and from this increased volume it is possible to make interest payments. When a loan is thus productively used the payment of interest does not entail loss upon the borrower.

When the state borrows, a similar result may or may not be attained. When it borrows to develop the mental, physical, or material resources of its citizens, the burden is usually carried easily by the increased productivity that wise and careful policies of development bring to a society. The case is different when the state borrows to prosecute war. Except in the unusual circumstance when war is followed by the successful collection of a large indemnity from a defeated foe, *no increased productivity of the nation results from war*. War is the antithesis of economic life in that it involves the destruction of workers and economic goods. Thus the enormous borrowings and expenditures of the great war have left as an aftermath heavy capital and interest charges to be paid by peoples impoverished in brains, in labour power, and in substance. Certainly in this instance, interest on government loans is not being paid out of an increased productivity, but is being painfully drawn, in the form of heavy taxes, from the lessened incomes of the people.

**Factors Affecting Interest Rate.**—Whether the rate of interest is high or low depends, in part, upon the supply of loanable funds in relation to the demand for them and, in



part, upon other factors which influence the loan market. A paramount consideration in the mind of the lender is the return of his principal sum. But, with the exception of possibly a few high class government bonds all loans entail a certain risk. There is always the possibility that the shocks and accidents of business activity may cause loss. There can be no absolute guarantee of safety. But, wherever the possibility of loss becomes evident, cautious lenders will refuse to loan. The more speculative the enterprise the more the borrower must offer for the funds he requires. *Risk* is thus an important *element* in the *interest rate*, and may come from the nature of the enterprise, the dangers of social or political upheaval or by a government passing legislation which renders the recovery of a loan difficult. All these factors affect the interest rate. A relatively *high rate indicates a speculative loan*.

Another important influence on the interest rate is *stability of the level of prices*. If prices are falling the interest rate will tend to fall also. The explanation is that if a lender makes a loan of one hundred dollars, this amount at the time the loan is made, represents to him a certain definite amount of purchasing power. If the loan is to be repaid at the end of five years and prices have fallen in the meanwhile, then this sum when repaid will purchase more goods than when the loan was originally made. Under these circumstances it is natural that falling prices tend to make interest rates lower. Conversely rising prices mean a rising interest rate. The lender has then to take into consideration the fact that when his loan is repaid the sum he will receive will have less command over other goods than at the time the loan was made. To protect himself against this invisible loss the lender demands a higher rate of interest. From the standpoint of the borrower,



periods of falling prices are usually periods of depression offering little incentive for profitable enterprises and there is therefore little demand for loans. In periods of rising prices business is generally good, business men are optimistic, and the demand for loans is brisk.

**Higher Rate of Interest in New Countries.**—In new countries, such as Canada, the interest rate tends to be higher than in older countries such as Great Britain. The chief reasons for this are that in a new country capital is relatively scarce and there are many opportunities for the employment of funds. Frequently also these opportunities are accompanied by considerable risk. On the other hand, in such a country as Great Britain there are accumulated the savings of many generations. The supply of funds is relatively large, the openings for new enterprises few. Under these circumstances the rate of interest has been low in Great Britain, and British funds have left the country to seek investment all over the world.

**The Saving Nations.**—In general certain nations may be called saving nations. In the past the great saving nations have been the British, the French, and the Dutch. Their eminence in this respect is due partly to their *prosperity* and partly to *national habits*. To save requires foresight, a firm desire to ensure against future possible indigence, and sufficient strength of character to make denials in the present for the benefit of the future. Some nations possess none of these qualities, while other European nations, possessing them, have lacked propitious natural circumstances and the volume of their savings has not been notably large.

**National Importance of Saving.**—In the United States the enormous natural resources of the country, which have been exploited during the past century, have enabled a great



deal of wealth to be accumulated without a very severe strain upon the self-denial of the American people. The economic expansion of Canada is slower but the same development appears to be taking place. In both instances, it is too soon to venture a judgment as to whether these countries are to be definitely ranked as great saving nations. From a national standpoint, the desirability of saving cannot be too strongly emphasized. *Saving means economic independence, the development of industry, of comfort and the possibility of art.* It is a mistake to identify saving with parsimony. Saving is one of the great tap-roots of prosperity in any country.

John Boutillier

John Boutillier



## CHAPTER XX <sup>(20)</sup>

### PROFITS

**Profits.**—It has already been pointed out that the *entrepreneur* is the pivot around which modern industry turns. He accepts the responsibility of deciding what commodities will be produced and determines the manner of production. We shall now discuss the reward he receives for these important services. Rewards come to the *entrepreneur* in the form of profits, though frequently these returns include both profits and other items which might more correctly be classed with wages, interest or rent.

**Nature of Profits.**—The nature of profits can be most clearly explained by an illustration. An *entrepreneur* believes that there is a possibility of supplying a certain commodity to the public at a profit. He himself has no resources, however, except his skill as an *entrepreneur*. He succeeds in borrowing funds on which he pays *interest*. He secures a site upon which he pays *rent*. He equips it for his purpose and hires the necessary men to whom he pays *salaries or wages*. He buys the necessary *raw material*. He also pays *taxes*. His plant, when put into operation, turns out a certain volume of the commodity he has chosen to manufacture. This commodity, on the basis of his expenditures, has *cost* him so much per unit. Now, if he is able to *sell* it at a higher price per unit than it has cost him to produce, the *difference* between his *cost price* and his *selling price* will be his *profit*.

In brief, the *entrepreneur* incurs certain expenditure



for *land, labour, and capital goods* in the expectation of reimbursing himself at a future date from the proceeds of the *sale* of the *commodity* he has *produced*. The returns, over and above expenditures, he considers his profits. To make profits, not only must the *entrepreneur's* judgment be correct in calculating the amount of expenditure he will have to make to procure the three factors in production, but, in addition, he must have correctly gauged the state of public desire for the commodity he offers for sale at the price at which he is able to offer it. This is no small task. He usually comes to a market already supplied with similar goods and has to sell his product in *competition* with others. These and other factors, such as the prosperity of the buying public, he must take into consideration. If he is in error in his judgments, he will suffer loss instead of securing profits. Continued failure to successfully "hit the market" results not only in disaster to himself, but loss to the community. If he is successful in his venture, profits will accrue, and he will build up a profitable industry, which is a *good thing for the community*.

In this illustration, in order to bring out clearly the nature of profits, we have assumed that the *entrepreneur* himself lacked funds and had to rely on borrowing for the full extent of his outlay. Part of the funds invested in the enterprise, however, usually belong to the *entrepreneur*. Moreover, out of the funds he has gathered together to launch the enterprise, he may buy his site and factory outright. But when he computes the results of his operations, he may not include with the other expenses a charge for rent or for interest on his own share of funds in the business, but call the whole surplus profits, because it accrues to himself. This would be incorrect, because the sum he has invested in the enterprise might have been put



out on loan and have yielded a return in interest. Even if he does make this deduction in exactly determining his profits, a further difficulty remains. He may not put in a charge for his own time, yet, as the employee of another business, he might have been able to secure a considerable wage for his services. Whether such a deduction should be made is debatable, but, where it is not made, it is generally recognized that there is an item in profits which might properly be termed "*wages of management*". Profits above this point are called, to distinguish them, "*pure profits*". If a man owns a small shop or a small farm the income he draws from it can be analysed into the items *rent, wages, interest, and profits*.

**Wages of Management and Pure Profits Distinguished.**—In a small enterprise it is not difficult to decide who is the *entrepreneur*, but, when we examine a large corporation with thousands of shareholders and a large group of executive officers, it is not so easy to pick out the *entrepreneur*. We know that the shareholders elect a board of directors and that they in turn elect a president, (who may or may not be the manager), and choose other officials. In this instance, who is the *entrepreneur*? The answer is that the shareholders assume the risk of loss and if there is a gain enjoy the profits. Moreover, they exercise a decisive influence on the conduct of the business in their selection of directors. To this extent they take the responsibility of entrepreneurship. It is true that the board of directors they have elected and the officials chosen by the board; really carry on the business, organizing and directing it; so the shareholders cannot be said to perform all the duties of the *entrepreneur*. The difficulty is met by the distinction already drawn between "*wages of management*" and "*pure profits*". The *shareholders*



receive *pure profits*. The *directors*, to the degree that they are shareholders, *participate* in these *pure profits*. In addition, directors' fees and the salary of the managing director, president, or general manager, are termed *wages of management*.

**Level of Profits.**—If we consider what determines the general level of profits, we must first recognize the fact that profits must be large enough to keep industry going. Whenever profits become very low in any industry, the volume of those goods placed upon the market begins to diminish because of withdrawals from that line of enterprise. If, under these circumstances, the demand for the goods continues steady, the decrease in quantity offered will lead to a *rise in price*. This will increase the margin of profit on the article and once more capital will be attracted to this line of production. Thus *market price*, by its influence upon profits, acts as a *regulator* of the *volume of production* and guides enterprise in its choice of goods to produce. This causes a rough equality in the level of profits for different industries. The circumstances surrounding each industry, however, are so dissimilar, that all that can be said is that there is a tendency, risk and other elements considered, for profits to come to a general level of equality.

**Value of Managerial Skill.**—It must also be noted that in every industry there is wide variation in the amount of profits made by the different firms engaged therein. In every industry there are failures as well as successes, and for one firm that makes really large profits, numbers will usually be found where the returns are very moderate. Variation in *managerial skill* is the chief reason for differences in profit-making. Entrepreneurship demands a rare combination of qualities. The entrepreneur must have



the power to divine the *trend* of the *market*, be able to choose and direct men, be ready to adopt new and improved methods of production, and pursue his ends with cool calculating foresight and driving force. Along with the possession of these qualities as an explanation of variation in profits, there are from time to time fortuitous circumstances which swell the profits of an industry. These windfalls are balanced, however, by losses due to circumstances over which the business man has no control.

**Higher Levels of Profits for Speculative Ventures.**—An explanation of profits frequently offered is that large profits accrue in industries involving exceptional risks or where the flow of business is not steady from year to year. Admittedly, certain industries do suffer greatly from fluctuations. These may be due to changes in the public taste, as in the style of articles of wearing apparel, or to changes in natural conditions, as in certain industries based directly on agriculture. It naturally follows that profits may appear to be very large where these uncertain conditions exist. A consideration of the business for several years, however, will show that the profits are not unduly large. It is evident, however, that the level of profits in such industries should on the average be somewhat higher than in less speculative ventures which are not characterized by this irregularity and uncertainty.

**Effect of Competition.**—In every industry there are certain forces at work to keep profits down. In the first place *competition* itself leads to a continual struggle between rivals. Each desires to market his commodity and if necessary in order to do so will reduce the price to the lowest margin of profit at which he can do business. Keen competition brings this about and also leads to great alertness in developing cheaper technical processes of



*production*. In the factory a reduction of cost below that of competitors enables a business man to lower prices just enough to extend his market. His rivals pursue the same policy and in this struggle prices are whittled down, and the advantages of technical progress reach the general public. Incidentally, the less alert and efficient firms cannot meet this competition and are forced out of business, the *efficient persist*, and the public *benefits* by the control of production tending to fall into the most capable hands.

**Effect of Large-scale Production.**—In these days of large-scale production there are many examples of very large profits being made through the magnitude of the business done by a single great company. The profits per unit of goods may be quite small, but the aggregate is large because the aggregate of trading is large. In an investigation into the meat industry in 1905 it was shown that the average profit per head of cattle for one year was 80 cents per head. But during the year in question 2,017,864 cattle were slaughtered at the selected plants, the gross profits on these cattle being over \$1,615,000.

**Extreme Lowering of Expense of Production Causes Conflict in Distribution of Social Dividend.**—In his desire to *produce cheaply* the *entrepreneur* attempts to keep his *expenses of production reduced* to the lowest possible figure. But this quickly brings him into conflict with the desires of others. The *entrepreneur's* expenses for land yield rent to the land owner, his payments for labour are wages and salaries to the labouring classes, and his payments for loanable funds are interest to those who have savings to lend. Thus, in these payments he distributes to various classes of society claims upon the social dividend, that is, claims upon society's store of finished goods. His expenses, which he naturally wishes to keep as low as



possible, are income and living to others. Conversely, it is in the interests of these classes to force the *entrepreneur* to pay as much as possible for what they have to offer to him. It follows, therefore, that *around the work of the entrepreneur centre most of the problems of modern industrial society.*

**Advantages of Highly Skilled Managers.**—For precisely this reason it is of the highest advantage to a nation to possess a group of highly skilled *entrepreneurs*. Their skill results in a thrifty exploitation of the resources of nature, the most efficient training, development, and employment of the labour powers of the community, and progressive advance in industrial technique and in the use of capital. On the other hand, inefficiency in industrial leadership results in a wasteful use of nature's gifts, mismanaged and unskilled labour, and obsolete methods of production. Only under conditions of skilled entrepreneurship can the various classes permanently receive their full share of the social dividend. Under our system of free enterprise a premium is placed upon skill in industrial leadership. Except in the case of banks and railway companies, which have to go to parliament to secure a charter, any *entrepreneur* is free to enter any industry he chooses providing he has the funds to begin or can obtain them by borrowing. The rewards, as we have pointed out, are profits; the penalty for lack of skill is failure and loss. Every month the commercial records report the failure of business enterprises. These failures show that the present system of conducting industry, tends to eliminate the inefficient *entrepreneur*.

It is a common error to assume that the work of the *entrepreneur* is of slight importance and that with some other organization of society, his services will no longer be



required. While the basis of production is the co-ordination of land, labour, and capital, there will be a need for men who can perform this task, whether they become *entrepreneurs* under the system of free enterprise, are appointed by governments or civic authorities, or are selected by ballot.



## CHAPTER XXI

### MONOPOLY

**Monopoly.**—We have seen how profits are obtained under free competition. In certain industries, however, they are the result of monopoly. Monopoly means literally sale by one man, but the meaning of the term has been extended to include a business firm or an organization of any kind which possesses a sufficient control over the supply of a commodity or of a service to enable it to fix the price. The nature of Monopolies varies according to the *basis* upon which the *monopoly control rests*. They may be classified as:

- (1) Personal monopolies;
- (2) Natural monopolies;
- (3) Legal monopolies;
- (4) Capitalistic monopolies.

**Personal Monopoly.**—Personal monopolies require a very brief consideration. They are based upon the possession by one individual of exceptional gifts which set him apart from other men. Thus a great artist has a monopoly in the production of his works of art because they have a unique and distinctive quality and cannot be duplicated by another.

**Natural Monopoly.**—A natural monopoly exists where the nature of an industry demands *unified control* for economical and efficient operation. Of this type are telephone systems, street railways, waterworks and lighting plants in towns and cities, telegraph lines, railways, canals,



harbours, docks, bridges, and ferries. In enterprises of this nature considerable *gains* can be made by *concentrating control* in the hands of *one organization*. It eliminates confusion, reduces the cost of management, makes possible the symmetrical development of the enterprise, and facilitates the most effective use of capital. These advantages are made possible through the fact that there is a certain naturally-limited service to be performed, and that not more than one enterprise can successfully operate in the field.

**Legal Monopolies.**—Legal monopolies go back in history to the days of absolute government. The monarch was all-powerful and he would confer upon a favourite the exclusive right to deal in a particular commodity. Many monopolies of this nature were granted in such articles as salt, currants, vinegar, and iron. They became very objectionable to the people and disappeared when the monarch lost absolute power. To-day, legal monopolies fall into two classes, *public* and *private*. As in the past, they depend for their existence upon an *exclusive grant by the government* to produce certain kinds of goods or to furnish certain services. *Private legal monopolies* are limited to patented inventions and to copyrighted books. The inventor and author are given an *exclusive control* over their product *for a limited period of time*. This privilege is justifiable as an encouragement to authorship and invention. Closely associated with these rights is the privilege of *registering a trade mark*.

*Public legal monopolies* exist where the state for any reason assumes control of an industry. Thus, it may create a monopoly in the liquor traffic with a view to *controlling consumption* or *securing revenue*. In France, the tobacco industry was made a government monopoly for fiscal reasons. The importance of the postal service has



caused governments everywhere to make it a public legal monopoly. For the same reason the provinces of western Canada have made the telephone service a public monopoly. No definite decision can be made regarding the desirability of public monopolies. The nature of the industry might cause it to become a natural monopoly were it not taken over by the government. Other industries, such as the production of tobacco or sale of liquor, might without government action be carried on under conditions of undesirable competition or might possibly develop into capitalistic monopolies.

**Capitalistic Monopoly.**—Capitalistic monopolies are due to the desire of *entrepreneurs* to increase and stabilize their profits by securing sufficient *control* over the supply of a commodity to be able to *dictate its sale price*. They rest upon the ability of a large and powerful *entrepreneur* to buy up or to destroy competitors, or, where this is not possible, to make arrangements with them in order to control the supply of the commodity in which they are interested. The form of organization varies and monopolies of this class are known as *pools, mergers, trusts, cartels* or *combines*, these names being loosely applied to designate the method by which monopolistic control of the product is achieved and maintained.

It must be pointed out that a monopoly is rarely absolute or complete. In the case of capitalistic monopolies there are usually some independent firms who compete within limited areas. Natural monopolies, such as railways, have competitive points where they meet the competition of other organizations or other forms of transportation. With almost all monopolies there is a *competition* from the *use of substitutes*. The telegraph and telephone compete with the post office as a means of communication; the street



railway suffers from the competition of the taxicab and the privately owned automobile. Rarely is a monopoly complete.

**Unfair Competition.**—The efforts of the capitalistic monopolies to conserve their power has led to certain kinds of competition which are often considered unfair because they do not rest upon a superior efficiency in production. Three methods have been particularly prevalent. The first of these is known as local price cutting. If a small producer is offering inconvenient competition to a monopoly, the latter unduly depresses the price at the local point where the small firm is established, to destroy his business or force him to suffer losses. Many small producers have been wiped out in this manner by large monopolies. A second method is that of requiring the small stores, who retail a certain product, to sign an agreement not to handle the goods of competing producers in return for the privilege of retailing this product. Monopolies also force retailers to handle their new lines if they wish to continue to sell the old. When a monopoly is well established, these “tying” clauses make it difficult for a competing producer to organize the sale of his commodity. A third method is by discrimination in the form of rebates or preferential arrangements. Special reductions or favours are given to firms who agree to handle only the products of the monopoly. Here, also, the intent is to prevent the competing producer from placing his goods before the public. None of these methods is based on superior efficiency of production, but rather rests upon the magnitude of the organization controlled by the monopoly.

**Monopoly Price.**—The effect of supply upon price has already been examined. Here we desire to show how a monopoly, by manipulating the supply of goods



offered upon a market, may reap increased profits. We have seen that, other things being equal, a decrease of supply will cause a rise in price and that an increase in supply will cause a fall in price. The monopoly has the power to increase or decrease supply, and thus, in a manner, can control prices. Naturally, the monopoly will endeavour to cause the price to *rest* at that *point* where it will secure the largest net profits. This may be illustrated by the following example. We assume that a monopoly has complete control over the sources of supply of a commodity, and that the commodity is produced under conditions of decreasing cost per unit.

Price per unit.	Number of sales.	Total Earnings.	Total Expenses.	Net Profits.
10	750,000	\$ 75,000	\$ 62,500	\$12,500
9	900,000	81,000	67,000	14,000
8	1,200,000	96,000	76,000	20,000
7	1,600,000	112,000	88,000	24,000
6	2,100,000	126,000	103,000	23,000

It is evident that, if a monopoly carried its manipulations of supply to a point where it had secured the above information, it would limit its production to 1,600,000 units and fix the price of the commodity at seven cents per unit. At that point the monopoly would secure the *largest net profits*. This is the aim of every unhampered monopoly. But it must not be forgotten that while a monopoly may charge a high price for its product this price is not necessarily the outcome of control over supply. In the illustration the price was reduced. The explanation is that the *price at which a monopoly sells its product is determined purely by the return it obtains in the form of net profits*. If it obtains larger net profits by selling high, it will fix a



high price upon its goods; if a low price brings the greatest net returns, a low price will be charged.

However, if a commodity is produced under conditions approaching *fixed costs* per unit of the article produced, the development of a monopoly usually means an *increase in price*. In this illustration the cost of production per unit is assumed to be *seven cents*:

Price per unit.	Number of sales.	Total Earnings.	Total Expenses.	Net Profits.
10	750,000	\$ 75,000	\$ 52,500	\$22,500
9	900,000	81,000	63,000	18,000
8	1,200,000	96,000	84,000	12,000

Clearly under these circumstances a monopoly, in its own interests, would fix the price at ten cents per unit and limit its output to 750,000 units.

**Checks upon Monopolies.**—For several reasons monopolies frequently do not exert the full power which the control of supply places in their hands. In the first place, if a monopoly becomes too overbearing, it is likely to bring upon itself a *government investigation*. This investigation may be followed by an attempt: (1) to regulate the price at which the monopolized commodity or service shall be sold; (2) to take over the industry and conduct it as a government enterprise; or (3) to restore free competition by dissolving the monopoly. These possibilities the monopoly wishes to avoid. Charges of arbitrary conduct and excessive rates by natural monopolies such as railways have led to *methods of regulation*. In the United States the Interstate Commerce Commission scrutinizes and regulates railway rates. In Canada this function is performed by the Board of Railway Commissioners, which was created in 1903. Various Public Utility Boards have been created



with similar powers over such services as the supply of gas, water, and light, where these are privately owned.

Secondly, if a monopoly is rapidly amassing large profits, these act as a bait leading other groups of men to organize companies with a view to competing with the monopoly and sharing these profits. A monopoly, therefore, may consider it wise to keep the price of their commodity low so that rivals will not be attracted to the field. A third deterrent to monopoly exaction is the danger that consumers of the commodity may seek *substitutes*. These three possibilities: the danger of government interference, the development of fresh competition, the loss of the market through consumers patronizing substitutes, are *checks*, preventing a monopoly from exerting its full power in fixing prices.

**Efforts to Control or Destroy Great Monopolies.**—The last decade of the nineteenth century and the first of the twentieth witnessed a great growth of powerful monopolies in the United States. Oil, sugar, tobacco, meat packing, and the steel industry came under the control of small, strongly organized groups of men who saw, in the vast demands for these products in the United States, an easy avenue to prodigious fortunes. The development of these great monopolies excited alarm, and soon brought action from the government of the United States. Monopolistic activities were widely investigated. Those investigations were followed by legislation against monopolies and by prosecution in the courts. A number of monopolies were declared to be illegal and their organizations were ordered to be dissolved. In Canada the development of monopoly has not attracted as much notice. A recent statute of the Dominion parliament, replacing an earlier act, provides for the investigation of alleged combinations. The measure



is of too recent enactment to judge its effectiveness in combatting monopoly. Despite strenuous efforts, the government of the United States has not succeeded to a marked degree in destroying monopoly in that country. The organization of many monopolies has been changed in deference to legislation and to judicial decisions, but in many cases practical control over the supply of commodities still exists. While that control remains, the possibility of securing monopoly profits continues.

**Monopolistic Competition.**—The term “monopolistic competition” or “imperfect competition” is applied to instances where certain firms produce such a large proportion of their commodity that changes in their own output have an effect on its price. Under these circumstances these firms are able to influence price by increasing or decreasing the supply offered to the market. Under ordinary free competition the individual producer is not able to accomplish this. For example, the individual wheat grower selling wheat is only one of hundreds of others doing the same. His individual deliveries to the market will be too small a proportion of the whole to have a perceptible effect on the price at which wheat will be bought and sold. That will be determined by the total quantity being delivered on the market set over against the total demand for it. Thus the large firm, which is in a semi-monopolistic position, is able by manipulating the amount produced to charge a higher price to the public than would be the case if there were free competition. With the increasing size of business enterprises this type of competition is becoming more prevalent and creates the difficult problem of devising means of protecting the public against undue exaction.



## CHAPTER XXII

### LABOUR ORGANIZATIONS

**Bargaining.**—The conditions under which a labourer seeks a position, often put him at a disadvantage in making a bargain for wages with an employer. Of course, where there is an actual shortage of help and employers are actively bidding against each other for labourers, the latter are in a position to secure full value for their services. This condition, however, is rather exceptional. In most instances the labourer needs a job much more keenly than the employer needs his services. To the latter, he is simply one more labourer who can be advantageously used, but who can also be dispensed with if necessary. But the labourer depends upon his wages for his livelihood, and he commonly has insufficient resources to enable him to delay in accepting a job, even if he is unsatisfied with the wages offered. If he declines the job he runs the danger of finding himself and his family suffering from actual privations. In fact, many wage contracts are made when the labourer has already exhausted, or almost exhausted, his resources. Under these circumstances, he is forced to agree to the employer's terms.

While it is true that there are forces at work which tend to reduce the supply of labourers available in any overcrowded industry, so that the level of wages in the long run is likely to be commensurate to the task, these forces take time to become effective. The superior bargaining power of the employer compared with that of the individual workman has too often led to the wages of the workman being the



last item to be increased when prices have advanced, and the first to be reduced when prices have fallen. He has been the last to share in a period of general prosperity, and the first to feel the weight of a period of depression. It has also been true that in certain industries, largely through the labourers' lack of organization and consequent weakness in bargaining power, their standard of living has been lowered almost to the level of mere subsistence.

**Collective Bargaining, 1824.**—In Great Britain, the condition of the labourer became acute about 1800 when the skilled craftsman was rapidly being displaced in many industries through the introduction of machinery. Moreover, at an earlier period in English industrial life, it was customary to have the rate of wages fixed in the local communities by the Justices of the Peace, and for a group of workmen to unite to refuse to work at the wages so fixed was considered a conspiracy against the State. The laws under which wages were fixed in this way to some degree protected the labourer from having to work at an excessively low rate, but they were gradually repealed. The laws prohibiting workmen from combining to enforce collectively higher wage rates not only remained on the statutes, but was made more repressive. As a result, those who attempted to form unions were prosecuted in the courts, and consequently little was achieved. In 1824, however, an act was passed which made it possible for labourers to *bargain collectively* in regard to wages. Since that date labour unions have grown in numbers and strength until to-day they form a clearly recognized element in the industrial life of the community.

**Types of Labour Organizations.**—Wage earners' organizations are of three clearly defined types. Of these the oldest and by far the most important is the craft or *trade union*.



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This "unites in a single association those workers who are engaged on a single industrial process or on processes so nearly akin that anyone can do another's work." It has as its ideal a union of "skilled workers exercising a practical monopoly of its craft." By controlling the supply of labour it aims to so strengthen the position of the craftsman that, in bargaining for wages with an employer, he will be on an equality with him. This type of union believes that the workers in each craft have interests peculiar to themselves which can only be settled by direct negotiation with the employer of that craft, and that these interests might not receive due consideration in a wider labour organization. Good examples of this form of union are the *Brotherhood of Locomotive Engineers* and the *International Typographical Union*, both powerful organizations composed of highly skilled men.

A second type of labour organization is the industrial union. This ignores craftsmanship and aims to unite all workers of an industry whether skilled, semi-skilled, or unskilled. The idea of this type of union is that the development of large-scale industry, where a single plant will bring together many classes of workers and various kinds of skill, has weakened the effectiveness of the union based on craft. It is maintained that, by uniting into one organization all workers in a plant, better results can be obtained in bargaining with the employer. When differences arise, the employer will have to meet the united power of all his workmen and not simply a section or group, and will therefore find it harder to evade the workers' demands. The *United Mine Workers of America* is an example of industrial unionism. It includes in one organization coal diggers, helpers, firemen, shot firers, drivers, haulers, engineers, timbermen, and other labourers employed in mining.



The third type of union is called the labour union. It endeavours to include in a single organization all workers irrespective of trade, craft, sex, or nationality. Its central ideal is the unity of the whole wage-earning group, an ideal which, however inspiring, has not proven to be solid enough to develop sturdy unionism. The Knights of Labour, which flourished in the United States between 1870 and 1890 and had 600,000 members in 1886, made this form of unionism very well known. With a formal organization, very much like the industrial unions, the One Big Union (the O.B.U.) was very active in western Canada in 1919 and had at that time a membership of over 40,000. It also strongly emphasized the solidarity of labour.

**Essential Aim of these Organizations.**—The essential aim of all these forms of wage-earners' organizations is to *improve the economic position of the labourer*. This may be accomplished by strengthening him in his bargaining power so that he may *negotiate on virtually equal terms* with his employer to secure higher wages or to enforce other concessions. The right of collective bargaining is the basis of a union's strength. It enables labourers, by acting together, to bring pressure to bear effectively upon the employer. While an employer might easily dispense with the services of one employee rather than grant his demands, it becomes quite a different matter to him when the demand of one labourer becomes the demand of all the men he has employed or the demand of a whole class of men engaged in an essential process in his establishment. It is upon the absolute and complete prohibition of contracts between employers and individual men that trade unionism is founded.



**Strikes.**—The right of collective bargaining carries in reserve the right to strike if arrangements satisfactory to wage-earners cannot be made. A strike is a *concerted withdrawal of workers to enforce a demand*. It is the great weapon of unionism and its aim is to stop an industry until wages and conditions of work are agreed upon by both employer and employee. It is not usually resorted to except after negotiations have been tried and have broken down. In Canada in 1932 there were 116 trade disputes, of which 111 were begun during the year. Many of these disputes were in regard to wages but some of the most important related to trade unionism. During the year 113 disputes were terminated, 53 settlements resulting from negotiations. In 44 instances the dispute was terminated by the return of the strikers or their replacement.

**Policies Identified with Unionism.**—Since the object of a union is to secure, through organization, better terms for the workers, any policy which will strengthen the union in its dealings with the employer is naturally developed to as full an extent as the circumstances will permit. The methods used have generally been along two lines. First, the union *builds up its financial resources*, so that in the event of a strike it is able to come to the aid of the workmen and support them while they are not earning their usual wages. In this way resistance can be prolonged. Many of the more conservative unions require their members to pay fairly large monthly dues. A certain part of these funds is available in case of a strike. A second policy of the unions is to endeavour to *lessen or restrict the supply of labour* in the individual trades. This policy is designed to take advantage of the ordinary laws of supply and demand. Reducing the supply of labour in any industry tends to make wages rise. Unions restrict the supply of



labour by insisting upon the *closed shop*, which limits employment in any particular establishment to union members, and by *restricting* the *number of apprentices* trained in any shop to a level out of proportion to the number of fully skilled workmen employed.

A third policy identified with unionism is known as the policy of "*ca' canny*". This means that the workmen do not work up to the level of their efficiency, but *deliberately slow down production*. A short-sighted view of the situation may make this appear to be profitable policy to pursue, and one certain to lead to a larger group of workmen being required for a particular job or to a longer period of employment for those engaged upon it. But, a pursuance of this policy adds to the cost of production and will probably decrease the orders for work an employer can procure. In the long run it generally causes lowering of wages by reducing the efficiency of labour. "*Ca' canny*" has been prevalent in Great Britain but the trend in the United States and Canada has been for the unionist to give "*a fair day's work*" and, when necessary, to exert other pressure upon the employer.

**Advantages gained for the Workers through the Unions.—**

In addition to guarding the workman's wage rate, the unions have been active in devising methods in general designed to improve the worker's position. A number of unions have organized sick relief, and will also aid a member who is out of employment. The influence of the unions upon legislation of a social nature has been considerable and here they have been joined by large sections of the general public interested in problems of social betterment. Quite early laws were passed limiting the *hours of labour for women and children*. Another group of laws regulate the conditions under which labour shall be carried on in



factories and mines, with a view to creating conditions of safety and protecting the health of the worker. Very important legislation provides for *insurance* against loss of time and earning power through sickness or accident. In certain states and provinces statutes have been enacted which prescribe a *minimum wage* which must be paid to all workers engaged in industry, except under certain exceptional circumstances. Social legislation is becoming increasingly important in the modern state, and has accomplished much in alleviating the condition of the worker.

The disruption of industry caused by labour strikes has also led to the development of measures designed to promote conciliation or arbitration. In Canada the *Industrial Disputes Act* became law in 1907. This act is limited in scope to public utilities and mines and aims to secure uninterrupted services in these vital industries. The emergency produced by the war stressed the importance of labour in every aspect, supply of workers, training, employment, wages, hours, organization and their relation with their employers. The whole field had to be brought under government control. As the war progressed increasingly comprehensive measures became necessary. The supply of labour was placed under a Director of National Selective Service and steps taken to stabilize wages while protecting workers against a rise in the cost of living. A National War Labour Board was created with nine regional boards, to deal with wartime wage problems. On these boards both employers and workers were represented.

The development of unionism in Canada is of fairly recent growth, although it is known that a union of printers was formed in Quebec city as early as 1827. The first unions formed were branches of British or American organizations or independent Canadian associations. Negotiations between the British and American organiza-



tions led to the transfer of the Canadian branches of British unions to the corresponding American associations, so that the field in Canada is now divided between the international unions and those of Canadian origin. At the close of 1942 there were 578,380 members of trade unions in Canada. Sixty international unions and thirty-two national unions reported a membership of 500 or over in Canada. Of the central organizations in Canada the Trades and Labour Congress is the oldest, dating from 1886. There are 1924 local branch unions affiliated with it. The Canadian Congress of Labour was organized in 1939 and has an aggregate membership of approximately 200,089 in 564 local branch unions. The international unions affiliated with the American Federation of Labour in the United States are members of the Trades and Labour Congress in Canada, while unions in the United States affiliated with the Congress of Industrial Organization (C.I.O.) join the Canadian Congress of Labour. A third central organization is the Confederation of Catholic Workers in Canada, with 214 local branch unions and 54,568 members.

**Labour Organizations in Politics.**—In recent years labour organizations have entered the field of politics. In Great Britain, the Independent Labour Party was founded in 1893 and has steadily grown in numbers and importance until it has become recognized as one of the great parties of the realm. In the United States, the American Federation of Labour, founded in 1881, and including most of the great unions, has stood aloof from direct participation in politics. In Canada, organized labour has followed the British precedent and has representatives in several of the provincial legislatures as well as in the House of Commons at Ottawa.



## CHAPTER XXIII

### PUBLIC FINANCE

**Public Finance.**—Through the organization of government, the state renders to its subjects a *variety of services* such as protection against invasion from without, the maintenance of public order, public education, protection against the spread of disease, and the promotion of the general welfare and development of its citizens. These services involve the expenditure of funds which must be obtained either from the public domain, from public industries, or by taxation, fees or other sources of a miscellaneous character. The *income* of the state is known as *public revenue* and the problem of the supply and application of this income is the study of *public finance*.

In general, the principles which govern the individual in obtaining a living apply to the state with equal force. An individual who is profligate and a state that is wasteful in its administration will both dissipate their resources and become poor. There is the *same necessity* in each instance for *thrift, foresight, and care*. But at the same time there are certain differences between the economic life of the individual and the economic life of the state. (1) The state has the right to employ coercion. It can lay a *legal claim upon the property and services of its subjects*. (2) The individual aims to *accumulate wealth*, the state aims to *render service*. (3) While the private individual endeavours to secure a *surplus* over his expenditures, the state tries to secure a *balance*. Large surpluses mean that tax-



payers are being required to pay more than the state really needs. A succession of surpluses usually induces careless and extravagant methods of finance. (4) The state must necessarily take into consideration the welfare of future generations. (5) While a private person *regulates his expenditure by his income*, the state reverses the procedure and regulates its income by its expenditure. It first decides what services are necessary and desirable and then makes plans to collect the funds required to render these services possible. Of course, this is true only within limits. While the law sets no bounds to the amount of taxes that may be levied, experience shows that there is a limit to the revenue-yielding capacity of any state.

**Public Domain of Canada.**—Within the public domain of Canada are included all the lands, forests, minerals, and water-powers which have not been alienated or sold to private individuals. In the provinces of Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, and British Columbia *these resources have always belonged to the province*, with the exception that in British Columbia there was a belt of twenty miles on either side of the main line of the Canadian Pacific Railway known as the Dominion Railway Belt of British Columbia, and a block in Northern British Columbia known as the Peace River Block. These along with the natural resources of the prairie provinces were *retained* by the *Dominion* until 1930. In *lieu of their domain*, the prairie provinces received an *annual payment from the Dominion treasury*. In 1930 the western provinces were given their natural resources. The Dominion still possesses the great areas of the unsurveyed north.

**How Public Lands have been Used.**—The Dominion of Canada does not draw large revenues from its public domain. It has used its public lands to attract settlers to



Canada with offers of free homesteads or to make large grants to railway companies to secure lines of transportation. Up to the end of 1920 the Dominion government had granted land subsidies to steam railways of 31,488,146 acres. Those provinces which control their public lands had granted 26,633,770 acres for the same purpose. Both in granting free homesteads and in assisting railway construction, the object has been to increase the population of Canada and increase the wealth of the Dominion.

Neither does the Dominion rely upon government industries for its income. In recent years the operations of the post office have yielded a moderate surplus, but this has been swallowed up by the losses entailed in other enterprises. Large expenditures have been made for the *construction of canals*, essential to the commercial life of the country. Their use is practically free, and the cost of construction and maintenance is borne by the general revenues of Canada. The largest commercial enterprise in which the Dominion is engaged is that of *rail transportation*.

**Merger of Railways included in Canadian National Railways.**—The Intercolonial Railway was built as a condition of Confederation and was completed in 1876. This line has never yielded large revenues. In 1903 the Dominion Government undertook the construction of the eastern division of the National Transcontinental Railway which was to be leased for 50 years to the Grand Trunk Pacific Railway but subsequently in 1915 the government was forced to undertake its operation. Later steps involved the acquisition of the Grand Trunk Pacific, the Grand Trunk Railway and the Canadian Northern System. These have all become part of the Canadian National Railways which at the close of December, 1931, had a mileage of



over 22,000 miles. These railways were taken over by the government as the result of financial difficulties and, as a national system, for many years did not pay its way. Early in 1918 the Canadian Government determined to build up a Canadian merchant marine. At the end of 1920 sixty-five vessels had been constructed, but in view of heavy losses in operation the fleet was reduced and in 1936 sold. It is fair to observe that on the whole *the commercial enterprises of the Dominion of Canada, far from providing the government with revenue, have themselves been a cause of taxation.*

**Taxes.**—A tax may be defined as a legal exaction by a public authority of a part of the wealth of individuals for public purposes. This definition insists upon the compulsory character of the levy, that it represents a deduction from the wealth of citizens, and that it is for public ends. While the justification of all taxes is the common benefit derived from living in an organized political society, no attempt is made to apportion taxes on the basis of benefits received. The benefits of government cannot be measured; and some other principle consistent with the idea of justice must be found to determine what taxation each individual ought to pay.

Adam Smith in 1776 laid down four rules or canons of taxation that every statesman should consider in devising a system of taxation:

1. The subjects of every state ought to contribute towards the support of the government, as nearly as possible in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state.
2. The tax which each individual is bound to pay ought to be certain and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be



clear and plain to the contributor and to every other person.

3. Every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it.

4. Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state.

These maxims have exerted a great influence on systems of taxation; and Professor Nicholson, of Edinburgh, has observed that they have "had sufficient energy to enable a series of great financial reformers to completely revolutionize the British system of taxation."

**Classification of Taxes.**—Taxes may be classified into two groups, as *direct* and *indirect* taxes. Taxes are said to be direct when they are collected from the individual who is intended or desired to bear the burden of them. An example of a direct tax is the income tax. The individual who pays income tax is unable to shift the burden to any other person. Indirect taxes can be shifted by the person from whom they are collected to some one else. Examples of indirect taxes are the *customs* and *excise duties*. When the importer pays to the government a custom tax, he can recover this amount by adding the amount of tax paid to the price of the article. Excise taxes are levied on goods in the process of manufacture, and they are shifted to the purchasers of the commodities so taxed.

**Advantage of each Class.**—Most systems of taxation make use of both direct and indirect taxes. The *advantages* of *indirect taxes* are that when properly levied they are highly productive, their payment does not excite the same degree of irritation that direct taxes often do, and they reach the taxable resources of the whole population. The *objection* to them is that most of them bear heaviest on the poorer



groups in society. The *advantages of direct taxes* are that they can be more evenly adjusted to the income of the individual, that in times of depression they are more steady in yield, and that the cost of collection is low. *Objections* are the dislike of the public to paying taxes, the possibility that the levy may be evaded, and the danger that the taxing officials may act in an arbitrary manner.

In Canada taxes are levied by the Dominion, by the provinces, and by the local governmental units such as cities, towns, villages and rural municipalities. The Act of Confederation gave the Dominion of Canada the privilege of levying both direct and indirect taxes, but restricted the provinces and their subordinate units to direct taxation. As each of the provinces as well as the Dominion has its own system of taxation, the Canadian field exhibits considerable diversity.

For many years the Dominion of Canada relied upon indirect taxation for revenue, and left to the provinces and local units systems of direct taxation. The heavy financial burdens entailed by the first world war forced the Dominion Government to extend the range of indirect taxation and to levy direct taxes. In the second world war the stupendous increase in revenue made necessary came chiefly from taxes on income and a sales tax. In 1944 the income tax contributed \$1,036,700,000 to which should be added \$428,700,000 from the excess profits tax or \$1,465,400,000 out of a total revenue of \$2,659,000,000. The yield of the sales tax was approximately \$250,000,000. Only the tremendous expansion in national income made such a tax yield possible.

**Income Tax.**—The income tax was first levied in 1917. It was preceded by a tax on business profits, in effect from 1916 to the end of 1920. Payments made under the business profits war tax act could be deducted from payments



due under the income tax act. The early yield under the income tax was relatively small, but as the machinery of collection improved the yield increased with the rates. The tax is levied both on natural persons and on corporations. The second world war raised the income tax to unprecedented heights. At the end of the European war corporations were paying 40% on their net income. Individuals paid a normal tax of 7% on income over \$660 with a graduated tax of 30% on the first \$500 in excess thereof. The rate increased to 85% on income over \$100,000. Tax credits of \$28 were deductible for each dependent and \$150 for a married person. Donations for charitable purposes and medical expenses receive exemptions.

Experience has shown the income tax to be the most flexible instrument of taxation at the disposal of the Federal Government. Under the impact of war it became its greatest single source of revenue, and is likely so to continue though at lower rates. It has been possible to use it also to correct the defects of other taxes by making the rate progressive, while exempting small incomes altogether and allowing certain abatements and exemptions on moderate incomes. It has thus proved to be not only a productive source of revenue, but serves to give the whole system of taxation elasticity in yield and justice in application.

**Sources of Provincial Revenues.**—The first item in the revenue of each of the provinces is a *subsidy received from the Dominion of Canada*. This subsidy is composed partly of a specific grant and is based partly on population. In addition there are certain special grants made as compensation for land and allowances for buildings, and allowances in lieu of debt. The total revenue received by the nine



provinces from the Dominion treasury amounted in 1942 to \$134,366,000 out of total provincial revenues of \$406,971,000. This is a much larger proportion received from the Dominion than is ordinarily the case. This is due to the fact that in 1942 the provincial governments complained that the fiscal policy of the Dominion, necessitated by the war, was reducing the revenues of the provinces. As a result an agreement was made between the Dominion and the provinces by which the Dominion offered each province an annual payment equal to either (a), the revenue it had obtained from personal income and corporation taxes or (b), the cost of its net debt services, as compensation for relinquishing these tax fields for the duration of the war and a certain readjustment period thereafter. Alberta, British Columbia, Manitoba, Quebec and Ontario accepted the first alternative and the other provinces the second.

Apart from revenues received directly from the Dominion Government the chief sources of provincial income are from the control and sale of liquor, \$58,618,000; gasoline taxes, \$47,668,000; revenue from natural resources, \$34,257,000; motor-vehicle licences, \$26,449,000; and succession duties, \$21,929,000. These sources combined with the amount received from the Dominion Government account for almost 80% of provincial revenues.

The revenue from natural resources is derived from the sale of lands, the collection of timber dues, mining royalties and the sale or lease of water power. There are also such large public enterprises as telephone systems and hydro-electric networks for distributing electric power. Licences and permits include "all payments which the law makes as a condition to the transaction of business, or to



the following of a profession, a trade, or any industrial calling." Licences or permits are also issued to individuals permitting them to operate an automobile or to purchase liquor. Succession duties are a tax upon estates when, through the death of the owner, the property passes to his heirs. Small estates are exempt, and a lower rate of taxation is levied when the property passes to next of kin than when it is left to collateral relatives or strangers in blood. The rate is also made progressive either with the value of the estate or with the size of the individual share. Sometimes both methods are used. The chief reason for the extensive use of this tax is that it has proven to be very productive and is easy to collect. Fees are paid for some specific service rendered by the state to an individual but are of slight importance as a source of provincial revenue.

By the Act of Confederation the provinces are limited to the field of direct taxation. When the Dominion entered this field it created difficulties for the provinces in finding sufficient sources of revenue. Under the stress of the war, with the Dominion drawing a large part of its revenue from direct taxation, the agreement of 1942 was concluded. A conference between the Dominion and the provinces is to take place for the purpose of making readjustments that will in future ensure adequate revenue sources to the provinces.

**Taxation by Local Units.**—In local units of government the taxation of real estate appears to be the greatest source of revenue. Each individual parcel of real estate is *assessed* for purposes of taxation at a certain value based on the *value of the land itself* and the *character of the improvements* made upon it. The owner is notified of this



assessment and an opportunity is given for a hearing if any objection is taken to the value placed upon the property. Finally, the assessment roll is made up and the total of assessments shows the amount of real property available for taxation. The local authorities have also before them the estimated expenditures necessary in the coming year. A percentage rate is then calculated and determined upon as *the tax rate* for the year. Not infrequently the value of the land and of the improvements is assessed separately, and the tax rate is based on and applied to the full value of the land and to two-thirds or three-quarters of the assessed value of the improvements. The effect is to tax the improvements at a lower rate than the land. In cities and towns the revenue from real estate is usually augmented by taxes on business or income, and by various minor fees and licenses.

**Causes of recent great increase in taxation.**—In recent years there has been a great increase in taxation in Canada. While an over-ambitious programme of railway construction before 1914 and a general trend towards an expansion of social services by the state account to some degree for increases in taxation the really great cause has been Canada's part in the war of 1914-18 and in the war which began in 1939. In 1914 the net public debt of the Dominion of Canada was \$335,996,850, and represented the cost of construction of public buildings, canals and railways, and the public debt taken over by the Dominion from the provinces at the time of Confederation. By 1920 the debt had increased to 2,248 million dollars, the increase roughly representing the cost to Canada of the first world war. Between 1920 and 1939 there was a further increase of approximately 900 millions, partly due to losses in railway operations



and the difficulties caused by the depression and drought in the prairie provinces. By 1944 the net public debt had risen to the enormous total of 8,740 million dollars and undoubtedly will continue to increase, while the expenditures necessary to reconversion are being incurred. The interest paid per capita has risen from \$1.64 in 1914 to \$20.27 in 1944. War debt is largely dead-weight debt; it is not represented by corresponding assets. Two ameliorating circumstances, however, should be noted: (1), the debt is now mainly held in Canada and interest payments on it go to Canadian citizens; (2), the rate of interest has fallen so that interest charges on the debt have not increased proportionately to its size.

The problem caused by the national debt may be met in two ways. Heavy taxation may be levied and rigorous economy pursued with a view to the accumulation of surpluses to be employed in reducing the debt, but this heroic and Spartan policy may only result in stifling industry and cramping the development of the country. On the other hand, while making adjustments to balance the budget, the government can bend every energy to maintaining a high state of employment by endeavouring to expand industry, trade and commerce, and the population of the country. By maintaining a high level of employment and creating a larger taxable capacity, interest on the national debt and other charges may more easily be borne. The size of Canada's public debt makes the strictest economy necessary, but at the same time there is urgent need for expansion in the wealth and population of the Dominion.



## CHAPTER XXIV

### INTERNATIONAL TRADE

**International Trade.**—With the development of railways and steam navigation, the exchange of large volumes of commodities between different parts of the world has become part of normal economic life. It is an old tradition, however, both in the study of economics and in a nation's attitude to consider international trade as a distinct phase of economic activity. Even when the volume of international trade was relatively small, nations scrutinized with anxious care the nature and value of exports and imports. Concerning what policy the state should pursue with respect to trading with foreign peoples, there has been continual debate. At bottom, this jealous watch over foreign trade has been due to distrust or dislike of the foreigner, combined with the fear that he might become rich and powerful at the expense of the home country.

**Its Uses.**—By international trade it is possible to procure commodities that either cannot be produced within the home country, or can be produced only under conditions of cost which render their use prohibitive. If they could not obtain them from foreign countries people who desire these goods must necessarily do without them or satisfy themselves with substitutes. An international trade, based on circumstances of this kind, naturally develops between countries of marked differences in climate and natural resources. Brazil sells coffee to countries where the coffee berry will not mature, and receives in exchange goods which Brazil does not produce.



**Advantages.**—The second group of products in which there is international trade consists of those which one country cannot readily produce, but which it obtains by exporting its natural products to another country. The coal and iron of England are exchanged for the wines and silks of France. This clearly demonstrates the advantages of international trade. "What everything really costs to a man who wishes to acquire it is the toil and trouble of acquiring it." If he devotes himself to making an article, which he can manufacture with relative ease, and by exporting that article obtains in return an article which he could make with relative difficulty, it is of advantage to him to secure his supply of this article by international trade.

The *great advantage* of international trade is that, in each country, labour and capital can turn to the *development* of the *industries* which *native aptitudes* and *natural conditions* especially favour. In this way, the largest gains will accrue from the division of labour. The total mass of commodities the world requires will be produced under the most favourable conditions.

**Varying Importance.**—The importance of international trade varies with the particular circumstances of each country. To a vast country like the United States with variations in climate from warm to cold, with a truly great variety of natural resources, with populous industrial centres and large agricultural areas, the importance of international trade is less than to highly specialized countries such as Great Britain, Belgium or Switzerland. These countries depend largely upon the export of their manufactured products to procure foodstuffs and raw materials. The United States is almost self-contained.



In international trade it is said that imports must balance exports between one country and the rest of the world. This is true *only* when we *include*, as imports and exports, not only *tangible commodities*, but also *services and funds*. When an English steamer carries freight between Rio de Janeiro and New York, England has a claim on the United States for these services of carriage. This must not be left out of the national reckoning. Claims arise also as the result of loans and investments made by the people of one nation in the money markets of another. Careful survey has shown that the *chief elements to enter into the computation of a country's international trade* are: (1) the export and import of commodities; (2) loans which a country receives or makes; (3) the annual interest on funds invested abroad; (4) the repayment of loans previously incurred; (5) payments due to a country for services rendered by its ships; (6) the transmission of funds by foreigners to their native country; (7) the expenditure of citizens travelling abroad; (8) funds brought in by immigrants; (9) the payments of indemnities arising out of war; and (10) the expenditure of national governments abroad. These are the *principal items* which *determine* the sum of *debts due to a country* and that of *debts due by it*. It is only when we include these items in the idea of imports and exports that it is true that imports must equal exports. Then indeed the maintenance of the equation becomes the condition of a country remaining solvent.

**Foreign Exchange.**—It has already been observed that money forms a convenient medium of exchange in the ordinary economic life of any people. In our examination of foreign trade we notice that claims for money between the citizens of one nation and those of another arise in exactly the same way as they do elsewhere. The *payment of these*



*claims*, however, is a much more complicated process and constitutes the business of the foreign exchanges. Nations have different systems of computation and coinage. The basis of one monetary standard may be gold, that of another silver, that of a third irredeemable paper. "Foreign exchange means the buying and selling of the money of other countries, and is handled in the same way as the buying and selling of most other things. If there is a strong demand for foreign money its price goes up and that of the local money goes down, and if there is a great supply of foreign money coming to be sold the movement is the other way." Foreign money is required to make settlements in foreign countries where debts are owed. Since, however, the shipment of money from one country to another is expensive, commerce has devised the use of credit documents known as *bills of exchange*. By means of bills of exchange it is possible in any country to cancel the debts and credits involving any other country, and thus to leave for shipment only the sum required finally to make the balance even.

**Free Trade and Protection.**—While there is general recognition of the benefits of international trade, the degree to which these benefits should be taken advantage of is a disputed problem of national commercial policy. On the one hand, *free traders* hold that nations should avail themselves of them to the widest possible extent. Only recently Great Britain changed her policy from that of free trade to protection. The other view is that, while there may be great general advantages to the world at large in a universal free trade policy, it does not necessarily follow that for any particular country such a policy would result in the maximum of prosperity and of national power. Hence, opposed to the policy of free trade, is the *national policy* or the



*policy of protection.* The latter name is applied because, in contrast to the policy of free trade, the aim is to shape or influence the industrial development of the state by *affording protection to certain industries that otherwise might not develop.*

The method by which this is commonly accomplished is by levying a protective tariff of custom duties *on goods entering the country.* The tax tends to be passed on to the consumer of the product and the price of the protected article is thus raised. This opens the way for home manufacturers to enter the field where, hitherto, it was unprofitable to do so. Indeed, if complete protection is desired, the tax may be placed so high that it makes it impossible for foreign goods to enter. In this event the tax would yield no revenue, but would be used simply as a protective barrier. In many instances, however, the protective principle is not carried to such great length. The *tariff*, while yielding a certain *degree of protection*, becomes also a *method of collecting revenue.* A free trade country in devising a customs tariff either levies taxes on goods that cannot be produced in the country, or else it levies excise duties equivalent to the customs duties on the commodities produced at home. In this way the domestic manufacturer has no advantage over his foreign competitor. The sole aim of a free trade tariff is *the collection of revenue.* The United States, Canada, and many of the countries of Europe are protectionist.

Many people defend protection as a *necessary stage* in the *industrial development of a country.* New industrial enterprises take time to develop sufficient strength to meet foreign competition. After a time, these infant industries become firmly established and then the protection they receive may be removed. This argument is generally



admitted to be sound, but free traders point out that "infant" industries rarely grow up and that they fight strenuously, and generally successfully, the removal of duties which enable them to make increased profits, even though, as a matter of fact, they are fully able to compete with foreign traders.

By "*solid protection*" is meant the view that protection should be extended to industries which have no hope of ever becoming strong enough to withstand foreign competition. In support of this contention it is held that such protection leads to a diversification of industry in the state and thus provides avenues of employment for all kinds of skill. This is also an intelligible argument, and in plain terms means that the state foregoes certain economic gains, which would arise from the nation specializing along the lines for which it is best fitted, in order to secure the general advantages of an all-round harmonious development. The argument is founded on a *social ideal*, rather than on a demonstration of economic advantage.

Protection is also defended as a necessary recourse against *dumping*. Dumping is the practice of established industries in foreign countries exporting and selling at a low price from time to time *surplus supplies* of their product which they find their *own market will not absorb at standard prices*. Dumping is selling at a lower price on the foreign market than on the home market. When dumping is done spasmodically or in times of depression, foreign producers may seriously injure the home manufactures of a country by demoralizing their market. Dumping may also be practised with the *set purpose of destroying competition*, and with the intention that after the competition is destroyed the price will be raised. In both these instances there seem to be sound reasons for safe-guarding



home industries. In the long run the domestic consumer will gain nothing by allowing the foreign trader to come in under these circumstances. Where, however, foreign firms have an established practice of disposing of a surplus at a low price abroad there seems to be no reason why the consumers who profit thereby should not be allowed to secure the product in this way at a cost very much lower than they themselves could produce it.

**Conflict of Interests.**—The groups in any country which naturally tend to favour free trade are: (1) those producers who must seek a foreign market for their product, and who, forced to sell in the world's markets and meet the competition of all nations, desire to benefit by a like competition and to buy their supplies wherever they can be procured most cheaply, without hindrance or restriction; (2) commercial interests connected with the import trade, who know that restrictive duties will cut or destroy their trade. Conversely, there is a natural tendency towards protection in those groups who cater to a domestic market, or who find in a domestic market their chief source of profit.

Conflicts of interest are not confined, however, to groups within a country, but find their sharpest expression between nations each eager to protect its trade. The years that have followed the signing of the treaty of Versailles in June of 1919 have been marked by rising tariffs all over the world. The creation of a number of new states in Europe separated areas which formerly had enjoyed free trade with each other. These new states in an endeavour to establish themselves resorted to tariff protection for their industries. This led to an increase in tariffs in other countries also. The dislocation in industry caused by the war was another factor and combined with other post-



war difficulties to produce a situation clearly injurious to international trade. It is generally recognized that the length and intensity of the depression that began in 1929 was at least partly due to this cause. As a result one of the great objects of the plans under consideration for the reconstruction of world relationships is to expand international trade to the largest degree possible.

**Canada's International Trade.**—The *chief countries* with which Canada engages in *international trade* are the *United States* and the *United Kingdom*. For the fiscal year preceding the war out of an aggregate external trade in commodities of over 1,600 million dollars approximately 78 per cent. was with these two countries. Canada found a market for 35.5 per cent. of her exports in the United Kingdom and for 41.1 per cent. in the United States. On the other hand, Canada bought only 15 per cent. of her imported goods from the mother country, while she purchased 66 per cent. from her neighbour to the south.

**Classes of Commodities.**—The largest class of commodities Canada sends to the United Kingdom are foodstuffs such as wheat, flour, bacon, cheese, fish and canned vegetables. She also has large exports to Britain of non-ferrous metals such as copper, aluminium and nickel. Wood and wood products are also important. In return Canada buys cottons, woollens, linens and other textile goods, machinery of various kinds, coal, chemicals and alcoholic beverages, as well as a great variety of miscellaneous articles. From the United States Canada imports a large range of products based on the great mineral resources of the United States. This includes many forms of machinery and coal. Also important are textiles, chemicals, some wood products, fruits and other foodstuffs. The United States buys from Canada wood and wood products, especially



paper. The United States also buys substantial quantities of grain and animal foodstuffs, as well as nickel, and other non-ferrous metals. One interesting feature of the trade between the United States and Canada is the importance of the tourist trade. In the year before the war American citizens spent in Canada a sum in excess of 150 million dollars. This class of business is just as important to Canada as the export of commodities to the United States.

Apart from the United Kingdom and the United States, Canada's international trade is divided about equally between parts of the British Empire and the rest of the world. Australia, South Africa and New Zealand have important trade connections with Canada. There is also considerable trade with the West Indies and India.

Before the war Canada's best customers among foreign countries, other than the United States, were Japan, Norway, Belgium, the Netherlands, Germany and France. Out of the destruction caused by the war much of this trade will have to be rebuilt. Canada with greatly increased productivity, is in a position to furnish a large volume of goods to the world, but much will depend upon what she can accept in return for her goods. For some years it is unlikely that the countries devastated by war will be able to export largely. This means that their imports will be governed by the credit facilities they are able to obtain.

Before the war Canada occupied an important place in world economy, ranking fifth in total trade, being fourth in exports and eighth in imports. Her leading exports are newsprint, wheat, non-ferrous metals, lumber and foodstuffs. Her chief imports are machinery, coal, crude petroleum and fruits and sugar.



## CHAPTER XXV

### PROSPERITY AND DEPRESSION

Economic activities do not continue with an even pace from year to year, but are subject to marked variations. Periods of good times when employment is plentiful, when industries and trade reach a high peak, and when profits are high, are followed by periods of stagnation or hard times with the reverse conditions prevailing. Because of the recurrent nature of these periods in business they are commonly referred to as "the business cycle". The business cycle may be measured from the depth of one depression period to the depth of the next, and it exhibits four phases, namely, depression, recovery, prosperity and recession or liquidation.

The business cycle varies in length and in amplitude from country to country and from one period of time to another. For example, in Canada between 1888 and 1924 there were seven complete cycles ranging in duration from two to seven years. During the whole period there were approximately 1.86 years of prosperity per year of depression. In 1925 an era of recovery began and passed into the years of prosperity, which reached a height in 1929. This was followed by a particularly severe depression with the lowest point in Canada registered about February of 1933.

It is characteristic of the business cycle that with the exception of one or two countries, which may for some particular reason be out of line with the others, all modern



countries tend to approach the same stage at the same time. Some countries have longer periods of depression than others. Between 1929 and 1933 depression was virtually world wide, but varied in intensity from country to country.

**Depression.**—To the individual, according to his particular position in the economic system, a period of good times means ease in obtaining employment, good wages, relatively high prices for products, or generous profits. In depression the opposite conditions obtain; scarcity of employment, reduced wages, low prices for products and deficits or low profits. What this means to the people of a country can be shown by comparing the figures for a period of prosperity with those for a period of depression. In Canada in August of 1929 it was estimated that there were only 39,000 workers unemployed, but by 1932 the number had risen to over 500,000, nor did conditions show any real improvement in this respect until 1933. Between 1929 and 1932 the level of wholesale prices fell thirty per cent. For instance, the average cash price of No. 1 Canadian Northern wheat in store at Fort William fell from \$1.58 per bushel in August of 1929 to 42.4 cents per bushel in December of 1932. During the same period the price of other grains fell likewise. In May of 1930 steers at Winnipeg sold for \$10.71 per hundredweight and in May of 1932 for \$5.12 per hundredweight. Many other illustrations could be given.

The slackening in economic activity is clearly seen in the reduced volume of international trade. In 1929 the aggregate external trade of Canada amounted to \$2,654,375,166; by 1933 it had fallen to \$886,985,126. Similarly, the exchange of the clearing houses of the chartered banks in Canada revealed a great diminution in the volume of trans-



actions. In 1932 the figures were roughly one-half of what they were in 1928. The number of commercial failures increased greatly as business enterprises found they could not withstand the strain. Other countries were similarly affected. In the middle of 1932 unemployment, a good indication of conditions, in the principal industrial countries of the world was almost three times as great as the average of 1929. As one writer has put it: "The most conspicuous fact about the whole industrial and commercial organization as it appears at such a time is its amazing inefficiency. It is like a well-oiled machine stuck on 'dead centre'. Mills stand idle, mines are closed, freight cars are empty, and fleets rot at the wharves. The falling off in physical production runs in some industries to 50 or 60 per cent., while individual firms completely suspend operations."

**Recovery.**—During the period of depression the consumption of goods is at a low ebb. Almost everyone feels the pinch and endeavours to save as much as possible. But as time goes on goods wear out and replacement cannot be any longer delayed. New stocks of goods have to be produced to satisfy this demand, and this creates an increase in business activity in certain lines. The production of manufactured articles increases the demand for raw materials used in the process. Increased employment makes its influence felt in the volume of retail purchases, which creates an increased demand for other kinds of goods. Thus an increase in one line of business engenders an increase elsewhere, and this slowly spreads throughout business. When it affects building construction and the manufacture of machinery the volume of business activity may expand rapidly. Usually the change in business conditions from deep depression towards prosperity takes



place slowly and is in progress for some time before it is recognized. Thus, in 1933 it was calculated that the production of raw materials throughout the world had increased by nine per cent. over 1932, while industrial activity increased by about twelve per cent. Despite this advance it was estimated that the number of unemployed in the world at the middle of 1934 was not far short of twenty millions, while world production stood only at about 83 per cent. of its 1928 level.

**Prosperity.**—There is no sharp line between the end of a period of recovery and the beginning of a period of prosperity. One merges insensibly into the other. There comes a time, however, when nearly all available labour can find employment, agricultural products sell at a good price, factories are running at full or almost full capacity, industries report good profits and the standard of living shows real improvement. These are signs that a country is enjoying an era of prosperity. Not infrequently, however, prosperity is not clearly recognized until it has passed into an unhealthy state of boom and excitement. This is the prelude to a crisis and the beginning of a period of recession.

**Recession.**—A boom period is the last aspect of an era of prosperity. Prosperity leads to an over-optimistic view of the future. This causes industrial leaders to enlarge their plants in the expectation of an increased volume of business. Bankers facilitate this operation by extending credit. The public which has noted the profits that are being made by corporations takes a hand in the game by eagerly buying shares in new enterprises or in old enterprises that are being enlarged. Speculation in the stock markets becomes very active. All these factors influence the demand for goods, particularly building materials and



machinery, and the prices of products rise. As the movement increases in momentum the supply of credit begins to run short and the interest rate shows an advance. Meanwhile, as prices rise, wages, lagging behind prices, do not purchase as large a quantity of goods as formerly. Strikes for an increase in wages to share in the general prosperity or to meet the higher cost of living begin to occur. When new units of production begin to operate and to put larger quantities of goods on the market a condition of strain develops. The expectations of business men cease to be fulfilled. At this stage it only requires some striking event to initiate a depression. A crop failure or the default of a large business firm may be the occasion. The transition from prosperity to depression often takes place very quickly. In the autumn of 1929 within the space of two months the price of wheat broke severely, and panic conditions prevailed on the stock exchanges. This was followed by a long period of increasing unemployment and increasing hardship. Not until 1933 was there evidence that the period of recession was at an end and a measure of recovery was beginning to take place.

**Causes of the Business Cycle.**—Many explanations have been offered to account for the recurrence of periods of prosperity followed by depression. It is believed that if the conditions that lead to a recession in business activity really could be determined, these conditions might be brought under control and the hardships caused by lengthy periods of depression be avoided. Depression implies a lack of equilibrium between the different parts of the economic structure. Out of this arises the paradox of scarcity in the midst of plenty. Too great a part of the resources of the community become locked up in capital goods of one kind or another. This breaks the equilibrium



of supply and demand at a certain point, and when this occurs in one part of the economic structure forces are let loose which tend to create similar conditions elsewhere. Thus unemployment in one great industry, by reducing the purchasing power of the workers employed there, tends to produce unemployment in other industries. In this way causes are set up which affect one industry after another until a general depression occurs.

The responsibility for this condition has been traced by some writers to a discrepancy between the amount that is saved and the amount that is expended in direct consumption from day to day. Savings may be deposited in banks, where they become available for lending or as a basis for credit to business men. Savings may also be employed directly in investment by the purchase of securities. Normally, when business men wish to expand their plants they must seek credit either through the banks or by the sale of securities. When there is a high degree of saving this becomes possible. The expansion of plants leads to a high degree of prosperity while it is taking place, due to the employment it offers. This process continues until the amounts set aside for daily expenditure prove insufficient to absorb the goods on the market offered for consumption at a price that will yield the producer a profit. When this point is reached a break occurs and becomes generalized in the manner outlined above.

Out of this analysis of the causes of prosperity and depression there has developed the view that a large measure of control over the business cycle might be achieved through control of credit and the rate of interest. Thus, when business men show a tendency to expand their plants unduly, credit might be refused to them for this purpose, or the rate of interest might be advanced to a level that



would discourage the proposed expansion. Similarly, by lowering the rate of interest paid to depositors some discouragement to saving would be given. The combined effect of these policies, it is argued, would be to encourage day to day expenditure upon consumption goods, and would thus tend to maintain equilibrium between the production of goods for direct consumption and those designed to increase production. One of the objects of the rigid control over prices and the rationing of goods by the War-time Prices Board has been to prevent inflation with a disastrous crash ensuing.

Under ordinary conditions there are difficulties in maintaining such a policy. The precise time at which a central bank should intervene decisively in a period of prosperity to check the production of capital goods would be difficult to determine and would likely be resented by interests affected. Apart from considerations of this nature, incalculable events, such as crop failures, new inventions, the discovery of new resources might easily create conditions of disequilibrium that could not be foreseen or adequately controlled.

**Ameliorative Measures.**—Periods of depression lay a heavy burden upon governments since they are confronted with declining revenues and at the same time must concert measures to relieve distress growing out of unemployment. The simplest method of dealing with unemployment is the direct payment of a dole or relief money to indigent individuals. An objection to this method is that maintaining people in this way is apt not only to injure their self-respect but also to create an unwillingness to seek employment when it does become available. The unemployed become the unemployable. A second method is to expend money on the construction of public works



such as roads and public buildings. Where such works are needed or likely to be needed in the not too distant future this is most advantageous, but there is always the danger that public works for which there is no real need may be constructed, the maintenance of which, after they are completed, will become a burden upon the community. Moreover, if a depression continues for any length of time the possibility of this means of extending relief becomes exhausted.

Unemployment insurance aims at providing the workers with a fund accumulated during periods of employment that will carry them over times when they are out of work. This system has the advantage of maintaining the worker's self-respect. When he draws his unemployment insurance he does so as a matter of right and not as a form of relief. At the beginning of 1945 more than 3,000,000 Canadians were insured under the Dominion unemployment insurance plan, instituted in 1941, and the insurance fund had reached a total in excess of two hundred and fifty million dollars. In addition the Unemployment Insurance Commission operates a free employment service under the authority of the Unemployment Insurance Act.

A striking development of recent years has been the acceptance by central governments of responsibility for maintaining industry in a state of full employment. It is recognized that, while direct relief may tide over a period of depression, unemployment tends to destroy the normal life of the community. The task of maintaining full employment is one of extreme difficulty and only the future will reveal whether the measures being devised to cope with the problem will prove successful.



## CHAPTER XXVI

### POPULATION

The size and density of a country's population have an important influence upon the nature of its economic problems. Thus it is obvious that the British Isles, with an area of 121,633 square miles but with a population of around fifty million people, has many problems which differ from those of Canada over thirty times larger but with a population under eleven million. In Canada it is often said that such a problem as that of transportation would solve itself were the population larger.

**Nature of a Census.**—The growth of population is of interest to all nations and since the beginning of the nineteenth century it has become the custom for each to take a census every ten years. A census numbers the people and collects other information at the same time. It has been described as the great periodical stocktaking of the people and their affairs. The credit of taking the first modern census is claimed by Canada. In 1666 a census was taken of the population of the colony of New France which showed a population of 3,215 souls. After Confederation a census was taken of the new Dominion in 1871, the population then being 3,689,257. The population of Canada by the last census in 1941 was found to be 11,506,655. The task of taking the census is part of the duties of the Dominion Bureau of Statistics.

The taking of an accurate census began in some parts of Europe only in the eighteenth century. In England



the first census was taken in 1801. For earlier periods the population has been calculated by various methods, but the totals can only be considered to be rough approximations. Even to-day the population of certain countries in Central and South America, Asia and Africa are not accurately known and it is estimated that these countries contain one-third or one-fourth of the world's total population.

**Growth of Population.**—Before the middle of the eighteenth century the growth of population in Europe is believed to have been slow. "There is no reason to assume that the population in 1700 was any larger than in 1600 or that the population in 1600 was much larger than in 1300. Although there is no doubt that the total population of Europe increased in the course of the eighteenth century, the size of the increase is not known." The population of England and Wales has been estimated at 1,500,000 in 1066, by 1603 it is thought to have grown to around 5,000,000. In 1760 it was placed at 7,000,000. Thereafter followed a rapid increase and forty years later the census of 1801 reported a population of 8,892,536.

Since 1800 population has grown rapidly. In 1800 the population of Europe was put at 185,759,000, in 1900 at 400,012,000 and in 1930 at 505,789,000. In North America the population of the United States grew from 6,000,000 people in 1800 to 131,669,000 in 1940. Between 1900 and 1940 the population of the world is estimated to have increased from 1,550 million people to over 2,000 million.

**Causes of Growth.**—The causes of this great expansion in population have been the subject of much study. The natural rate of increase is the birth rate minus the death rate, and it is obvious that many conditions may influence it. The two commonly regarded as being the most import-



ant during the last century and one-half are the decline in the death rate owing to progress in medicine and hygiene, and the great changes in economic technique and organization which began with the industrial revolution about the middle of the eighteenth century. Great improvements in the methods of agriculture and transportation made available greatly increased supplies of food-stuffs for the people living in Europe, while the opening up of the Americas, Australia and other parts of the world made possible the immigration of surplus population to these countries.

**Natural Rate of Increase.**—In 1941 the natural rate of increase per 1,000 of population in Canada was 12.2. The birth rate was 22.2 and the death rate 10.0. The highest rate in any province occurred in Quebec with a birth rate of 26.8 and a death rate of 10.3. This gave a natural rate of increase of 16.5 per 1,000 of population. The province of Quebec is regarded as having one of the highest rates of natural increase in any civilized area in the world. New Brunswick was next with a birth rate of 26.8 and a death rate of 11.3, or a natural rate of increase of 15.5. Alberta and Saskatchewan followed close together with natural rates of increases of 13.7 and 13.4 respectively. One reason why these provinces show such favourable figures is that they each have comparatively young populations compared with other parts of Canada, and, the lowest death rates in the Dominion. The natural rate of increase for the other provinces per 1,000 of population was Nova Scotia, 12.1; Manitoba, 11.4; Prince Edward Island, 9.7; Ontario, 8.7; British Columbia, 8.

It is of interest to compare these figures with those available for some of the great powers. The annual rate of increase per 1,000 of population between 1920 and 1930



for England and Wales was 5.6; for the United States, 14.2; for France, 6.5; for Germany, 6.8; for Italy, 7.4; for Russia, 15.5, and for Japan, 13.1. The effect of the war has been to raise the birth rate but against this must be placed the enormous losses caused by the great struggle.

**Public Opinion and Population.**—The attitude of public opinion to increasing population has been coloured by various considerations affecting the circumstances of each country. On the one hand, it has been held that large populations are a source of wealth and strength to the state. Thus the governments of nations such as Germany and Italy, largely for military reasons, have emphasized the importance of growing numbers, although the populations of both these countries show a high degree of density per area. Moreover, during the nineteenth century, under the influence of expanding industrialism, a large and increasing population was taken to be a sign of national progress. The almost stationary population of France has been a source of anxiety to her statesmen who watch with alarm the rapid growth of powerful neighbours. In new countries such as the United States and Canada, until recently, a large population was ardently desired with a view to the development of their national resources and to making progress in every branch of business.

On the other hand, a lurking fear found expression from time to time that population might increase so rapidly that it would outrun available food supplies. In early primitive communities, where there was a real danger of food shortage, artificial limitation of numbers was secured by the exposure of infants. During the nineteenth century dominant opinion strongly favoured populational growth. Very recently, however, many people have come to believe that unemployment, poverty, wars and other social and



economic evils are to be attributed to over-population. The United States has now reached a density of population that has led her to believe that she should restrict the entrance of immigrants, and drastic regulations have been put into force to achieve this purpose. In Canada, since the depression, the active solicitation of immigrants has ceased, while those applying for admission, unless farmers with capital, are required to show that they have sufficient means to maintain themselves until employment is secured.

**Thomas Malthus.**—The clearest statement of the pessimistic view that population tends to press upon natural resources is to be found in the writings of Thomas Malthus, who published an essay upon the subject in 1798. At this time Europe was suffering from the effects of the Napoleonic wars, and while population was increasing rapidly in England, there was at the same time evidences of excessive poverty. Malthus believed that population was limited by the means of subsistence and invariably increased where the means of subsistence increased until it was kept in check by most of the population living in a state of misery. His views were bitterly attacked and subsequently he conceded, in later editions of his essay, that a prudential check might possibly act as a means of keeping down numbers. By a prudential check he meant the postponement of marriage and of raising a family until the parents had means available to provide a proper standard of living. On the whole, however, he was not very hopeful of this taking place. The Malthusian "law of population", as it is known, rests upon the view that population grows with rapidity when it is allowed to take its own course while increase in the means of subsistence tends to increase with relative slowness.

The expansion of population in Europe which marked



the nineteenth century was associated with a rise in the general level of welfare. Conditions of the labouring classes were markedly improved. Hence, it was argued that this fact disproved the views of Malthus. But when Malthus wrote, each country in Europe was practically self-contained and self-supporting. To-day this is no longer a fact. Europe is dependent upon the resources of other countries for a considerable portion of the food that is consumed by its people. Meanwhile, population is growing in food-exporting countries and relatively little new land remains to be occupied. If populational growth continues, food exports may decline. Thus it is not inconceivable that over-population might occur with a general lowering of the level of welfare as a result.

Two factors must be considered. It is well known that there has been a great increase in agricultural productive-ness brought about by the application of scientific research to agriculture. Improved varieties of plants and breeds of animals, the use of artificial fertilizers, more scientific methods of culture and the destruction of pests have all contributed to this increase. But the best soils are already in use, and while progress may be expected to continue, any great increase in productivity seems likely to entail greatly increased outlays of labour. For this reason the influence of a decline in the natural rate of increase of population may prove to be of greater importance.

**Declining Birth Rates.**—In recent years in many countries there has been observed a strong tendency for the rate of increase of population to decline. This is markedly exhibited where population is densest, death rates lowest and social standards highest. This trend appears to rest upon a “deliberate limitation by married people of the size of their families.” Desire for a higher standard of living,



the demands of modern industrialism, and the increasing degree of city life are all thought to be contributing factors towards reducing the size of the family. The fall in the birth rate in recent years has been so sharp that if continued certain countries such as the United Kingdom, Germany and the United States foresee a not very distant future when their total population will remain stationary. Falling birth rates and man's increasing control over nature through scientific research postpone the dangers of over-population.

**Growth of Population in Canada.**—It was noted above that the population of Canada in 1666 numbered 3,215 souls. One hundred years later population had increased in Canada to seventy or eighty thousand. The coming of the United Empire Loyalists after the American war of Independence, together with natural increases, brought the numbers up to two hundred thousand in 1790. In 1800 it is estimated roughly that Canada's population had reached a quarter of a million. One hundred years later the census of 1901 reported 5,371,315. While this total was not large, yet it represented a rapid rate of growth. The population had increased twenty times within the century, compared with an increase of fifteen times in the United States for the same period. Throughout the period Canada with her large unoccupied areas keenly welcomed immigrants but suffered from the competition of the United States in getting them.

After 1900 there was a rapid influx of settlers into Western Canada. The immigration movement grew in volume until in one year (1913) over 400,000 people entered Canada for settlement. Between 1900 and 1911 total entrances exceeded 1,800,000. A third of this number was subsequently lost to this country either by return to



Europe or by immigration to the United States, but when the census of 1911 was taken the population of Canada was shown to be 7,206,663, an increase of 34% for the decade. This was larger than the relative growth of any other country during the same period.

Immigration fell off with the outbreak of war in 1914 and never recovered its old volume since that date. In 1932 the number of immigrant arrivals recorded was 25,752, the lowest number since 1900. Nevertheless, between 1921 and 1931, 1,273,000 immigrants entered Canada, but the permanent gain in immigrant population, as shown by the census of 1931, was only about 350,000. The remainder had either returned to their native country or had succeeded in gaining access to the United States.

**The Problem of Immigration.**—On account of the outward flow of people, who come to this country but fail to take root, it is held by some students of the subject that Canada has now reached a degree of settlement where her capacity to absorb new population is practically limited to the natural increase of her own people. Moreover, it is pointed out that the increasing density of population in the United States no longer gives to Canadians the same opportunity that it did in the past to seek a living there if they do not find conditions in Canada attractive to them. For these reasons it is argued that immigration to Canada should not be encouraged but should be restricted to narrow limits.

This is a difficult problem to pass an opinion upon. It is probable that with a population of fifteen or twenty million people, with our present standards of living, certain burdens of government would be reduced. On the other hand, the course of the long depression has made it clear that mere numbers insufficiently established are not



a source of strength to a country. Canada's population will continue to grow but not at the rate confidently expected during the years of high immigration before 1914. A recent estimate has placed twenty million people as "the upper limit of any probable population in Canada at the end of this century."

Despite the fact that the war has reduced the population of Europe by millions it is possible that a small but steady stream of emigrants from that continent may seek a home in Canada with a view to escaping from the hardships of reconstruction in their native land. The important consideration to be kept in mind is that it is the quality and the standard of well being of a population, not mere numbers, that count. The glorious achievements that marked the reign of Queen Elizabeth occurred when the population of England was scarcely one-half that of the present population of Canada.

**Family Allowances.**—In 1945 the Dominion Government instituted the Family Allowance Plan which provides for an allowance to be paid for each child in Canada under 16 years of age from the Dominion treasury. The rate of payment varies from \$5 a month to \$8, depending upon the age of the child. The allowances are reduced after the fourth child. This measure will apply to nearly 3½ million children in Canada. The object of the legislation is to help parents provide properly for the health and welfare of their children. The payment of these allowances may also lead to an increase in the birth rate. As yet this legislation must be considered as experimental in nature and how it will work out remains for the future to reveal.



## XXVII

### CONCLUSION

The preceding chapters have described briefly the conditions under which modern society secures the material means of subsistence. It has been shown:

- (1) that man's wants are the basis of all economic life;
- (2) that individual and domestic production have each given place almost entirely to industrial production requiring large aggregates of capital and labour;
- (3) that man now satisfies almost all his wants indirectly by means of exchange;
- (4) that exchange involves specialization and an unconscious co-operation between groups and peoples, uniting them in bonds of mutual self-interest;
- (5) that necessary agencies to exchange on a large scale are money, credit and transportation;
- (6) that the amount of economic goods that any individual, family, group, or class obtains depends upon the scarcity of the services rendered by that individual or individuals in relationship to the demand for the service by society;
- (7) that as economic life becomes more complicated, a series of problems have arisen such as the relationship between different classes in society, the control of monopoly, and the determination of international trade policy;



- (8) that of these problems the most difficult is the recurrence of periods of depression involving stagnation, unemployment and individual suffering.

In this brief survey no attempt has been made either to justify or to condemn the present economic order. The guiding purpose has been solely to describe and to explain. But it must not be forgotten that economic activity is only one side of human life. Even to consider it apart from the other activities of man requires considerable thought, and it must not be forgotten that the other activities will have their influence upon how a man will conduct himself in making a living. Regard for law, for loyalty, and for honour, consideration of fellow men, and many other qualities either moderate or sharpen the daily struggle for existence. This struggle is most severe in countries densely populated and relatively deficient in natural resources, but since 1929 all over the world to find employment has been the most pressing problem of thousands of men and women.

We have seen that the desire to satisfy wants is at the foundation of economic activity. The nature of these wants themselves, after primary necessities have been satisfied, is of great significance for the satisfaction of wants is only a means of living. The quality of the life will depend upon the nature of the wants. Twenty-four centuries ago Aristotle, the Greek philosopher observed that "no one would maintain that he is happy who has not in him a particle of courage or temperance or justice or prudence, who is afraid of every insect that flutters past him, and will commit any crime, however great, in order to gratify his lust of meat or drink, who will sacrifice his dearest friend for the sake of half a farthing, and is as feeble and



false in mind as a child or a madman. Facts easily prove . . . that happiness, whether consisting in pleasure or virtue, or both, is more often found with those who are most highly cultivated in their mind and in their character, and have only a moderate share of external goods, than among those who have external goods to a useless extent, but are deficient in higher qualities."



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